

Exhibit 4

Expert Rebuttal Report of Andrew Zimbalist
(December 26, 2017)

**UNITED STATES DISTRICT COURT
DISTRICT OF NEVADA**

Cung Le, Nathan Quarry, Jon Fitch, Brandon
Vera, Luis Javier Vazquez, and Kyle Kingsbury,
on behalf of themselves and all others similarly
situated,

Plaintiffs,

v.

Zuffa, LLC, d/b/a Ultimate Fighting
Championship and UFC,

Defendant.

Lead Case No.: 2:15-cv-01045-RFB-(PAL)

**EXPERT REBUTTAL REPORT OF
ANDREW ZIMBALIST**

CONTAINS HIGHLY CONFIDENTIAL MATERIAL

Table of Contents

I.	Assignment	4
II.	Dr. Blair’s HHI Analysis Provides No Insight Into Zuffa’s Market Power or Monopsony Power	4
III.	Dr. Blair’s Procompetitive Efficiency Arguments Are Flawed.....	7
A.	Dr. Blair’s Comparisons Between the Challenged Conduct and Restricted Free Agency Are Inapt.....	7
B.	Dr. Blair Makes No Effort to Quantify Efficiencies or Weigh Them Against Anticompetitive Effects.....	19
C.	Dr. Blair’s Purported Efficiencies Can Be Accomplished With Less Restrictive Means.....	19
IV.	Dr. Blair’s Switching Analysis Fails to Analyze Whether Zuffa Wanted to Retain The Athlete.....	22
V.	My Use of Labor Share to Measure Damages Is Proper	23
A.	Athlete MRP is Difficult to Measure Empirically	24
B.	My Comparison of Athlete Compensation to Revenue Is a Reasonable Proxy for MRP	27
C.	Zuffa and Its Economists Use Wage Shares	29
D.	Sports Economists Regularly Use Wage Share	32
E.	Uniform Practice in Professional Sports Leagues is to Use Compensation Share	35
VI.	My Yardstick Methodology Is Proper	37
A.	The Yardsticks I Have Selected Are Appropriate.....	37
1.	Age, Scale and Scope of Benchmarks	40
2.	Cost Structure.....	41
3.	Collective Bargaining	42
4.	Other Restraints on Free Agency in Team Sports	44
B.	Averaging Across Multiple Yardsticks Increases Reliability	45
C.	Boxing Suffers From None of the Distinguishing Characteristics Noted By Zuffa’s Experts.....	46
D.	Bellator and Strikeforce Confirm My Yardsticks are Similar to MMA	47
E.	Zuffa’s Experts’ Proposed Alternative Yardsticks Are Inapt.....	48
F.	My Calculation of Fighters’ Revenue Share In Boxing Is Accurate	51
G.	My Calculations of Zuffa’s Athlete Compensation Are Commensurable With My Calculations of Athlete Compensation In My Yardsticks.....	56
H.	My Overall Damages Calculations Are Reasonable.....	56
I.	Other Criticisms of My Damages Analysis Are Incorrect.....	57
VII.	Response to Dr. Robert Topel’s Procompetitive Efficiency Arguments.....	58
A.	Dr. Topel’s “Free-Rider” Argument Is Flawed	58

B.	Dr. Topel’s Reliance on Other Promoters’ and Sports’ Practices To Evidence Procompetitive Purpose Is Unfounded	65
C.	Dr. Topel’s Argument that Transaction Costs Make Co-Promotion Cost- Prohibitive Does Not Justify Zuffa’s Conduct.....	70
VIII.	Conclusion	73

I. ASSIGNMENT

1. I have been asked by the plaintiffs' attorneys to respond to the discussion in the expert reports commissioned by defendant Zuffa, LLC ("Zuffa") in this case pertinent to the opinions expressed in my opening report.

II. DR. BLAIR'S HHI ANALYSIS PROVIDES NO INSIGHT INTO ZUFFA'S MARKET POWER OR MONOPSONY POWER

2. Dr. Blair's report commences with a discussion of market power (¶¶ 21-24) wherein he dismisses the claim that Zuffa has monopoly power on the basis of (a) computing an HHI index of the MMA industry that is measured by the number of bouts and events and (b) an accounting of the number of fighters who once fought for Zuffa who subsequently fought for other MMA promoters. Although my assignment did not include the definition of the relevant market or the identification of market power, Dr. Blair purports to critique my report on these grounds. His critique makes little sense. First, although Dr. Blair himself does "not attempt to define the relevant market in this case," and has done no analysis of the substitutability of fighters at different MMA promotions, Dr. Blair purports to calculate market shares and HHIs based on an arbitrarily defined market of "all promoters that promoted an MMA athlete who previously competed for the UFC."¹ However, as he himself writes, "how the market is defined may greatly influence the market shares of the firm or firms involved."² Furthermore, "if one relies solely on market share as an indication of market power, the market delineation must be

¹ Blair Report ¶ 23.

² ROGER. D. BLAIR & JEFFREY L. HARRISON, MONOPSONY IN LAW AND ECONOMICS (2010) 61; Blair Dep. at 283:12-24 ("Q. Would you agree that how the market is defined may greatly influence the market share of the firm or firms involved? ... A. As a general proposition, you mean? Q. Yeah. A. Well, of course. I mean ... if we define the market to be ready-to-eat breakfast cereal, then Kellogg's has a certain share. If we define the market to be all things that people eat for breakfast, it's going to be a lot different.").

precise.”³ Given that he includes no analysis of substitutability to determine the metes and bounds of the relevant market, Dr. Blair’s HHI analysis can provide no insight into Zuffa’s ability to exercise monopoly or monopsony power.

3. Second, even if Dr. Blair’s market were properly defined, market shares and therefore the HHI index should be computed on the basis of revenue generated, not the number of bouts or events. If firm A organizes 10 bouts with each one generating \$1 million and firms B and C organize 100 bouts, each generating \$1,000, then firms B and C have 91 percent of the bouts but less than 1 percent of the industry’s revenue. Dr. Blair’s method would conclude that firm A, with 99 percent of the industry revenue, had no market power. Dr. Blair’s method is incorrect because, as the federal government’s Horizontal Merger Guidelines explain:

The Agencies measure market shares based on the best available indicator of firms’ future competitive significance in the relevant market ... *In most contexts, the Agencies measure each firm’s market share based on its actual or projected revenues in the relevant market.* Revenues in the relevant market tend to be the best measure of attractiveness to customers, since they reflect the real-world ability of firms to surmount all of the obstacles necessary to offer products on terms and conditions that are attractive to customers.⁴

Dr. Blair has offered no reason to believe that a local, non-televised event that sells a handful of tickets can substitute for a nationally televised PPV event that brings in millions of dollars. On the contrary, the fact that one event brings in so much more revenue than the other directly reflects their dramatically different “attractiveness to customers.”

4. [REDACTED]

[REDACTED]

³ BLAIR & HARRISON, *supra* n.2, at 63.

⁴ 2010 Horizontal Merger Guidelines § 5.2 (emphasis added).

[REDACTED]⁵ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁶ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

5. Fourth, Dr. Blair apparently assumes that any promoter that has at least one fighter who previously fought for the UFC necessarily promotes bouts and events in the same market as the UFC irrespective of whether the bouts or events feature the former UFC fighter.⁷ Thus, even if there were, contrary to the evidence, more than one instance in which non-Zuffa MMA promoters were able to sign fighters who left the UFC that Zuffa wanted to retain, Dr. Blair's HHI calculation is flawed because it does not just include bouts including these few former UFC fighters, but improperly includes bouts involving fighters who never fought for the UFC and are not at the level of, or reasonably substitutable with, UFC fighters. Dr. Blair makes no effort to justify his inclusion of all of these bouts and events involving non-substitutable fighters in the relevant market.

⁵ Blair Dep. at 290:1-5 ("Q. Did you do any investigation in selecting the promoters to include in your HHI calculation of the reasons why the fighter left the UFC? ... A. No, I did not.").

⁶ CG-UFC-00000005 (Item 204). Dana White made a slightly more modest claim in December 2008, White said to FiveOuncesofPain.com, "In nine years, there's only one fighter that I've lost that I didn't want to lose. That was Arlovski, and it still bothers me." See <http://www.fiveouncesofpain.com/2009/07/30/ufc-is-no-longer-interested-in-andrei-arlovski/>. In June 2008, White said to Men's Fitness, "Everybody knows that UFC fighters are the best. The other organizations' champions are guys we've either let go or who weren't good enough to make it in the UFC." White Dep. Ex. 102.

⁷ Blair Dep. at 289:1-6.

6. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

8

III. DR. BLAIR'S PROCOMPETITIVE EFFICIENCY ARGUMENTS ARE FLAWED

A. Dr. Blair's Comparisons Between the Challenged Conduct and Restricted Free Agency Are Inapt

7. In his report (§§ 25-35), Dr. Blair considers a number of the elements of Zuffa's exclusionary conduct, *i.e.*, the conduct Plaintiffs are challenging in this case (the "challenged conduct")⁹, separately and specifically highlights certain provisions he claims are similar to those in the current collective bargaining agreements of the four major team sports leagues (MLB, NFL, NBA and NHL) in purported support for his argument that certain elements of the challenged conduct are procompetitive. His argument is flawed in multiple respects.

8. First, the existence of any single contractual restriction with respect to a subset of athletes in one sport does not demonstrate that the provision is reasonably necessary to achieve any procompetitive efficiency.

9. In my report and in my deposition, I discuss Zuffa's use of its exclusionary clauses in contracts with fighters and related practices operating together, including the

8

[REDACTED]

⁹ By "challenged conduct" I mean the anticompetitive conduct Zuffa is alleged to have used to establish, maintain, and enhance monopoly and monopsony power. The challenged conduct includes, among other things: (a) entering multi-fight exclusive contracts with a large share of the top Professional MMA Fighters, thereby keeping this allegedly necessary input from other MMA promotions; (b) acquiring multiple actual or potential rival MMA promotion companies; and (c) impairing other MMA promoters by using its alleged dominance to threaten sponsors, promoters, and fighters who worked with or considered working with the UFC's potential rivals. Zimbalist Report ¶ 1.

synergistic interaction of the various contract clauses and employment practices. I show that these practices are anticompetitive in character and help explain how Zuffa has been able to increase its apparent dominance over the sport of MMA. Although Dr. Blair points to the existence of certain restrictions affecting certain athletes in certain other sports, the fact is, as I detail in my report, numerous professional sports organizations and leagues have grown and thrived without the same contractual restrictions. Indeed, the evidence is that it is only when the Zuffa-like restrictions on player mobility are relaxed do sports truly take off in terms of revenue growth and, in turn, commensurate athlete compensation increases. These facts affirmatively demonstrate that those restrictions are not only unnecessary to achieve any procompetitive efficiency, but they likely hinder procompetitive growth and expansion. For example, although Dr. Blair points to the NFL franchise player rule, he fails to mention that the NBA, NHL and MLB do not have a franchise player mechanism. Nor does Dr. Blair address the point I made in my opening report,¹⁰ that boxing promoters historically used champion's clauses in boxing contracts, but such practices were outlawed by Congress in the Ali Act because they were deemed to be unduly coercive.

10. Second, the contract provisions that Dr. Blair points to in the league sports differ in important ways from Zuffa's challenged conduct. For example, Dr. Blair analogizes Zuffa's champion's clause to the NFL's franchise player rule. According to the NFL's collective bargaining agreement with the players' union, each NFL team does indeed get to designate one of its 53 players as a franchise player. As Dr. Blair himself admits in his deposition and his own academic scholarship, the team must, however, pay the designated franchise player at least the

¹⁰ Zimbalist Report ¶¶ 100-102.

average of the top five players at the player's position in the entire league.¹¹ That is, the NFL's franchise player is paid a salary that is determined by market forces. Moreover, the structure of the franchise player provision discourages its use to lock up a star player indefinitely, unlike Zuffa's champion's clause. For example, if the team chooses to tag the same individual as a franchise player for a second consecutive season, the team must then raise the player's salary by a minimum of 20 percent.¹²

11. Further, to the extent that the franchise player rule allows a team to pay a player below his market value (either due to a lower annual salary or due to preventing a multi-year deal), then as Dr. Blair admits, it has anticompetitive effects that Dr. Blair has not considered.¹³ Namely, it prevents a player from moving to a team where he has a higher value (economically

¹¹ Blair Dep. at 181:19-183:1. Actually, the situation is more favorable to the player because the CBA stipulates that a tagged player must either receive the cap share of the top five players at the position or a 20 percent raise above his last year's salary (if it is his first tag) or 44 percent above (if it is his second tag), whichever is greater. Non-quarterbacks can only be tagged twice in their career.

¹² The application of the Franchise Tag to a player also carries negative salary cap accounting implications as compared to signing players to multi-year contracts where the guaranteed money can be prorated over the term of the deal. For example, had Von Miller signed his Franchise Tag in 2016, all \$14.1 million of his compensation would have counted against the Bronco's salary cap for 2016. When the Broncos resigned Miller to the six-year, \$114.1 million contract, even though Miller received \$25 million in 2016 (instead of the \$14.1 million due under the Franchise Tag), it only counted as \$11.5 million under the salary cap accounting rules. <http://www.sportrac.com/nfl/denver-broncos/von-miller-7717/>. By reducing the amount that Miller's contract counts against the salary cap, the team is able to allocate more funds to other players and produce a more competitive product.

¹³ "Q. So, that's a potential inefficiency that results from the franchise tag ... at least in that circumstance? A. Yeah. I mean, you know, I guess that there can be – it's hard – well, you know, I hadn't thought about ... these franchise tag alternatives in terms of social welfare before you raised this issue... but ... it seems that there's circumstances, like the one that we just discussed, where that might be the case." Blair Dep. at 200:17-201:1.

defined as the player's marginal revenue product ("MRP")). The same logic applies to the UFC's champion's clause.¹⁴

12. [REDACTED]

[REDACTED]¹⁵ [REDACTED]

[REDACTED]¹⁶ [REDACTED]

[REDACTED]¹⁷ [REDACTED]

¹⁴ One of Zuffa's other economists, Dr. Topel, recognizes this effect. *See* Topel Dep. at 84:25-85:5 (acknowledging that eliminating the challenged contractual provisions, including the champion's clause, could enhance fighter mobility and lead to higher fighter compensation: "Q. So for the existing stock of Zuffa athletes eliminating the challenged contracts, at least in the short run, would enhance fighter mobility and lead to higher fighter compensation, correct? A. It could do that.").

¹⁵ Blair Report ¶ 32.

¹⁶ The number of NBA players actually subject to the ROFR is very limited. For instance, during the 2017 offseason there were 137 unrestricted free agents in the NBA and only 12 who were restricted free agents (who were made qualifying offers and, hence, subject to ROFR).

¹⁷ Zimbalist Report ¶ 77. Dr. Topel agrees with me about certain anticompetitive effects of Zuffa's Right to Match provision, including that it reduces the incentive for MMA promotions to bid for UFC fighters, knowing that the UFC could simply match if it wants to keep the fighter. *See, e.g.,* Topel Dep. at 114:17-115:9 [REDACTED]

[REDACTED]"); Topel Dep. at 356:4-7 ("if Bellator makes its best offer and it knows that Zuffa will match, then, you know, the returns to making its best offer aren't as high as otherwise.").

[REDACTED]

[REDACTED]

13. Because all of the team sport restrictions on free agency and player mobility that Dr. Blair discusses—such as the NFL’s franchise player rule—are collectively bargained, the existence of any provision or practice in the team sports leagues is not, as Dr. Blair apparently assumes, evidence that it is procompetitive. Because such provisions are collectively bargained, the athletes in each of those sports have given up their right to challenge the contract provisions and employment practices under antitrust laws in exchange for the ability to collectively bargain through their players’ associations. That does not prove that such provisions do not have anticompetitive effects, and certainly does not prove they are procompetitive. With the UFC, the fighters have the worst of both worlds: substantial restrictions on mobility combined with no material competition over fighters (likely due to the challenged conduct’s effects on rivals) and a low share of revenues going to the athletes. Thus, as I discuss in my opening report,¹⁸ the fact that the U.S. team sports leagues still utilize some anticompetitive contract provisions and employment practices makes them conservative as yardsticks in my damages analysis. Furthermore, as Dr. Blair admits, because many professional sports leagues “are managing to survive” without restrictions on mobility such as the franchise tag system, “there may be alternatives” to the system that do not have the same anticompetitive effects.¹⁹

¹⁸ Zimbalist Report ¶ 114.

¹⁹ Blair Dep. at 217:19-217:21. This logic also applies to MMA. Indeed, Zuffa’s experts agree that the period in which the sport of MMA was having its most rapid growth was also a period in which Zuffa’s contracts were the least restrictive. See Topel Dep. at 330:3-14 (“[REDACTED]

[REDACTED]”). Prof. Topel acknowledged as well that Zuffa invested substantial

14. Dr. Blair also points out that exclusive contracts are used in league sports, presumably to suggest that means they are procompetitive.²⁰ The point I made just above about how restrictions on mobility in league sports are the result of collective bargaining, not evidence of procompetitive efficiencies, applies equally here. Moreover, as I explained in my opening report, to the extent that exclusive contracts of a substantial length of time are used in all league sports, that does not justify their use in MMA. This is because there is a fundamental structural difference between the intra-league competition in the major league sports, and the alleged dominance of a single promoter in MMA. According to Plaintiffs' allegations, Zuffa's challenged conduct substantially foreclosed the MMA market, preventing other promoters from competing to challenge Zuffa's dominance. In contrast, in the league sports I use as benchmarks, there is ample robust intra-league competition among teams for talent such that each team's contracts with its players do not impair the other teams' ability to compete. This robust intra-league competition is maintained through other league rules (such as revenue sharing in the NFL, NBA, NHL and MLB) which promote competitive balance among the teams. There is no analog in MMA, where there is a single dominant promoter that refuses to co-promote events.

15. The same logic explains why Zuffa's coercing players to sign a new contract before the previous one expires can be anticompetitive in MMA, while contract renewals may be procompetitive in the team sports. When a free agent in one of the team sports decides to sign a long-term exclusive contract, he is doing so in a competitive market in which he has a choice. He

resources in developing the sport of MMA and promoting MMA athletes in the early 2000s, even when it had shorter term contracts. *See* Topel Dep. 330:24-331:10 (“Q. And you would agree that during the early 2000s Zuffa invested substantial resources in developing the sport of MMA, right? A. Yes. Q. And in promoting MMA athletes, correct? A. Yes. Q. And it did so even with no evident market power, correct? A. Yes. And it did so with contracts of shorter duration, correct? A. That’s your representation, yes.”).

²⁰ Blair Report ¶ 33.

could decide not to sign an extension and enter an open labor market. The player and his agent know basically what the player would earn on the free market and the player's agent demands a similar sum for the contract extension. Hence, the contract extension is signed at the competitive price determined by an open market.²¹ In contrast, when UFC fighters sign an extension, they have no viable alternative at the top level of their profession and the extension becomes a tool for Zuffa to control all the top MMA fighters by preventing any competing rivals from gaining "traction."²²

16. [REDACTED]

[REDACTED]²³ [REDACTED]

²¹ This example is a generalization. In some cases players sign extensions in years prior to when they become a free agent and players will often take modestly less money from one team than from another because they have other reasons they want to play in a particular city or on a particular team.

²² [REDACTED]

²³ Zimbalist Report ¶¶ 15-20.

[REDACTED]

[REDACTED]²⁴

17. Dr. Blair, citing examples in the NFL and MLB of players who negotiated new contracts before reaching free agency, concludes that this “practice is procompetitive rather than anticompetitive” because it “maintain[s] and improve[s] the quality of Zuffa’s events” to retain athletes with whom Zuffa is pleased and that these extensions “ordinarily involve increased payments to athletes.”²⁵ Dr. Blair then notes that the “practice is not uncommon in professional sports.”²⁶

18. However, the specific examples that Dr. Blair discusses illustrate the important contextual difference between the relatively competitive market for NFL athlete services and the current UFC-dominated market for top MMA fighters. Dr. Blair cites the contract negotiations for two NFL players, Andrew Luck and Von Miller.²⁷ Both players negotiated contracts with their respective teams without reaching unrestricted free agency.²⁸ Andrew Luck’s team, the Indianapolis Colts, signed Luck to a five-year contract extension prior to the final season on Luck’s rookie contract.²⁹ The total value of Luck’s contract was \$122.97 million with \$87

²⁴ DiBella Dep. at 62:10-23 (“Q. If Dibella Entertainment issued its own titles and ranks of boxers would that increase the control that DiBella Entertainment would have over the boxers? A. Obviously. Q. Why is that obvious? A. The entity -- you would have total control. The entity paying the fighter would be the one determining who the champion is, determining who the challengers would be and basically, would put it into a, you know, a near total control over the fighter.”).

²⁵ Blair Report ¶ 25.

²⁶ *Id.* ¶ 26.

²⁷ Blair Report ¶¶ 27-28.

²⁸ *Id.*

²⁹ *Id.*

million guaranteed.³⁰ Von Miller's team, the Denver Broncos, applied the Franchise Tag to Miller after his final season on his rookie contract and, before the season under the Franchise Tag began, the Broncos signed Miller to a five-year extension worth \$114.1 million with \$70 million guaranteed.³¹ As both Luck and Miller approached free agency, the availability of a competitive labor market allowed them to negotiate contractual terms which allowed them to capture something close to their marginal revenue product, and reflected substantial increases from their prior contracts.³² UFC fighters have no such prospects.

19. [REDACTED]

[REDACTED]

³⁰ *Id.*

³¹ *Id.*

³² In both Luck's and Miller's cases the contract negotiations centered largely around the amount of guaranteed money, rather than the overall contract amount. See <https://www.si.com/nfl/2016/07/12/von-miller-denver-broncos-franchise-tag-league-wide-problem> (discussing the then-existing negotiating impasse as an issue of guaranteed money). Likewise, the increased compensation in Luck's and Miller's new deals were significant in light of injury risks. Luck was slated to receive \$16.155 million in the 2016 season if he had not signed a new deal. <http://www.sportrac.com/nfl/indianapolis-colts/andrew-luck-9811/> (noting the compensation associated with the Colts exercising Luck's fifth year option). Instead of receiving \$16.155 million for the 2016 season and bearing the risk of getting injured in 2016, Luck signed a new deal with a \$32 million signing bonus and \$12 million salary for 2016 for a total first year guarantee of \$44 million. *Id.* Similarly, Von Miller would have been guaranteed \$14.1 million for the 2016 season if he had signed the Franchise Tag applied to him (See <https://www.si.com/nfl/2016/07/12/von-miller-denver-broncos-franchise-tag-league-wide-problem> (noting that Miller had received the Franchise Tag of \$14.1 million but had not signed it); see also http://www.espn.com/nfl/story/_/id/14858518/2016-nfl-franchise-tag-values-every-position) but instead signed a new contract with a \$17 million signing bonus, a \$6 million roster bonus, and a \$2 million base salary for 2016 for a total of \$25 million in 2016. <http://www.sportrac.com/nfl/denver-broncos/von-miller-7717/>. Both Luck and Miller also received substantial salary increases and/or roster or workout bonuses in subsequent years. <http://www.sportrac.com/nfl/indianapolis-colts/andrew-luck-9811/>; <http://www.sportrac.com/nfl/denver-broncos/von-miller-7717/>.

[REDACTED] ³³ [REDACTED]

[REDACTED] ³⁴ [REDACTED]

[REDACTED] ³⁵ [REDACTED]

[REDACTED] ³⁶ [REDACTED],

³³ Dr. Blair misrepresents the functioning of MLB's player compensation system when he states that players must complete three full years of major league service before they are eligible for salary arbitration. Blair Report ¶ 29. In fact, as a result of very contentious bargaining over the years, 22 percent of the players with between two and three years of service (so-called "Super Two" players) are eligible for salary arbitration. Further, if a pre-arbitration-eligible or arbitration-eligible player is not tendered a new contract, then such player becomes a free agent. Thus, it is possible for a player to become a free agent after as little as one partial season in the major leagues.

³⁴ <http://m.mlb.com/news/article/70385190/angels-sign-mike-trout-through-2020-for-1445-million/>.

³⁵ <http://m.mlb.com/news/article/70385190/angels-sign-mike-trout-through-2020-for-1445-million/>.

³⁶ "Q. In order to have competition for... the contract that allows you to capture something close to your marginal revenue product ... you have to have an alternative to that agreement ... provided by alternative buyers in the market? A. Yeah. So for example ... if the Dodgers want Mike Trout, then Mike Trout, he's a free agent, he's got some leverage in bargaining with the Angels because he can go across the street, so to speak, and sign up with the Dodgers if they're offering him a better deal. Now, if the Dodgers don't exist, and the only employment opportunity that Mike Trout has is to either sign with the Angels ... after some negotiation, or essentially

[illegible]

20. _____

[REDACTED] 39
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

retire, then he's got fewer options. And that's going to influence the extent to which he's going to get compensated." Blair Dep. 157:11-158:6.

³⁷ Blair Dep. at 228:16-229:2.

38

³⁹ Blair Report ¶¶ 34, 35.

[REDACTED] 40

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] 41

21. Dr. Blair also criticizes my comparison of the duration of Zuffa's contracts to the average UFC athlete's career.⁴² In doing so, Dr. Blair offers an inaccurate assessment of the labor markets in professional team sports. First, he compares Zuffa's length of contracts not with length of contracts in team sports, but the length of time before a player reaches free agency. Contract lengths in professional team sports prior to free agency are generally *one year* in duration. When they are longer than one year, they usually involve market-determined compensation levels. So, for instance, a player in MLB can receive market-based compensation as soon as he becomes eligible for salary arbitration (either after two-plus or three years of major league service). Dr. Blair also alleges that players have to wait eight years before reaching unrestricted free agency in the NBA. He is incorrect. An NBA player reaches unrestricted free agency after five years in the league if he was a first-round draft pick. Second-round picks and undrafted players become unrestricted free agents after four years.

⁴⁰ Indeed, elsewhere Blair himself has commented on the NCAA's similar contracts with student athletes which provide the NCAA with the right to players' likenesses in perpetuity. Blair has noted that "the NCAA secures these property rights because of its monopsony power. If an athlete refused to surrender those rights, he or she cannot compete and will be denied a grant-in-aid." ROGER D. BLAIR, SPORTS ECONOMICS 378 (2012); Blair Dep. at 166:18-167:16 ("Q... So, do you believe that the reason the NCAA is able to secure the rights to athletes' likenesses in perpetuity is a result of its monopsony power? ... THE WITNESS: Yes.").

⁴¹ Arum Dep. at 121.

⁴² See Blair Report ¶ 36.

B. **Dr. Blair Makes No Effort to Quantify Efficiencies or Weigh Them Against Anticompetitive Effects**

22. Dr. Blair argues in various places that a provision or practice is “procompetitive,” but he does not attempt to quantify these alleged procompetitive efficiencies or analyze whether the provisions or practices might have anticompetitive effects as evidenced by any negative effects on other promoters or fighters. In short, Dr. Blair does not endeavor to balance the purported procompetitive effects he identifies against any potential anticompetitive effects. Instead, Dr. Blair appears to assume that if there are procompetitive effects, they necessarily outweigh any anticompetitive effects. Such assumption is contrary to economic theory.⁴³ Indeed, one of Zuffa’s other expert economists, Dr. Topel appears to recognize that the challenged conduct has anticompetitive effects, including (at least, in his view, in the short run) the suppression of fighter compensation and the raising of barriers to rival entry.⁴⁴

C. **Dr. Blair’s Purported Efficiencies Can Be Accomplished With Less Restrictive Means**

23. Other than pointing out certain limited restrictions on athlete mobility that exist in some team sports, but not others, Dr. Blair’s only economic theory supporting his opinion that Zuffa’s contract extension policies are procompetitive is that they allow Zuffa to “retain that

⁴³ See, e.g., Steven C. Salop, *The Raising Rivals’ Cost Foreclosure Paradigm, Conditional Pricing Practices and the Flawed Incremental Price-Cost Test*, 81 Antitrust L.J. 371, 374 n. 10 (2017).

⁴⁴ Topel Dep. at 75:21-76:3 (admitting that “eliminating the challenged contract provisions could promote entry by competing promoters, at least temporarily”); 77:14-21 (admitting that if challenged provisions were removed, “other MMA promoters could immediately retain Zuffa’s athletes ... if they wanted to”); 76:4-77:3, 84:11-18 (admitting that eliminating the challenged contractual provisions would create “a transfer of wealth from Zuffa to the athletes”: “Q. It’s a transfer of wealth, in your view, from Zuffa to the fighters because in this instance Zuffa would either have to pay the fighters more or someone else would pay the fighters more, right? ... A. I think I see where you’re going with it and yes.”).

athlete's services" if Zuffa "is pleased with the athlete's performance and fan appeal."⁴⁵ He thus argues that this results in improved quality of Zuffa events and that "[i]mproving quality is procompetitive; it is not anticompetitive."⁴⁶

24. But whether the quality of Zuffa's events improve is not sufficient to show that a practice is procompetitive.⁴⁷ Instead, whether a practice is procompetitive requires analyzing whether the practice improves the quality of events—*irrespective of the promoter*. In other words, to show that Zuffa's practice is procompetitive, Dr. Blair would need to show that the improved quality of Zuffa's events due to the practice is greater than the quality of events throughout the industry that would prevail absent the practice (or in this case, absent the challenged conduct as a whole). Dr. Blair did not conduct that analysis. Indeed, contrary to Dr. Blair's suggestion, Zuffa would not need to engage in any exclusionary conduct in order to retain the services of desirable athletes. Absent the challenged conduct, Zuffa could simply outbid its competitors for a free agent's services. In fact, such competition is more efficient than the challenged conduct because it leads athletes to go to their most productive use.⁴⁸ The challenged conduct might allow Zuffa to retain fighters whom it wishes to retain while suppressing their compensation, but if that fighter would otherwise have been more productive fighting for another promoter, Zuffa's retention of that fighter lowers output and quality of MMA overall by misallocating that fighter's resources to a less productive use, and is thus anticompetitive.

⁴⁵ Blair Report ¶ 25.

⁴⁶ Blair Report ¶ 25.

⁴⁷ To be sure, it is not even clear that the quality of Zuffa's events would improve, because fighters have less incentive to prepare and train in the short run. In the long run, prospective MMA fighters have less incentive to develop the necessary skills to participate in the sport, lowering the supply and overall quality of participants.

⁴⁸ Indeed, when discussing what he claims is the analogous franchise tag rule in the NFL, Dr. Blair admits that "at least that aspect of the collective bargaining agreement might have been improved" by providing for an English auction. Blair I (rough) at 209.

25. The flaw in Dr. Blair's reasoning is illustrated by applying his proposed justification to the reserve system that once prevailed in Major League Baseball. As Dr. Blair himself admits, by his reckoning, the historic reserve clause in U.S. team sports would also be procompetitive because it allowed the team to "retain that athlete's services" if the team "is pleased with the athlete's performance and fan appeal."⁴⁹ However, Dr. Blair simultaneously admits that the reserve system was anticompetitive, and that it transferred wealth from the players to the owners by giving the owners a property right in the players' contracts.⁵⁰ He also agrees with me that the demise of the reserve system and the advent of free agency led to dramatic increases in the compensation of professional athletes.⁵¹

26. Dr. Blair also attempts to justify Zuffa's right-to-match clause, which he claims is procompetitive because it "resolves uncertainty." However, he offers no explanation for what uncertainty it resolves, or why open competitive bidding for players will not lead to them to choose to work for the employer at which their productivity (and pay) would be maximized. On the contrary, he admits that a "right of first negotiation can ... increase transaction costs that would impede competitive bidding."⁵² And he also agrees that the right-to-match clause can ensure that Zuffa keeps the entirety of the surplus created by the fighter choosing to fight for

⁴⁹ Blair Dep. at 207:6-207:18 ("There would be a quality preservation aspect to the use of the reserve clause ... in that context.").

⁵⁰ Blair Dep. at 37:14-17; 103:4-6 ("Q. And the reserve clause harmed the players as well; right? A. Yes, it did."); 210:23-211:3 ("Q. I believe you said that you still thought the reserve ... system was anticompetitive, right? A. Yes..."). The reserve clause, of course, not only transferred wealth from players to owners, but, because of transactions costs and indivisibilities (the Coase theorem notwithstanding), it also impeded the movement of players to their most productive uses and disincentivized player training to maximize their performance.

⁵¹ Blair Dep. at 38:8-39:3 ("Q. And, based on your studying the history of baseball, you think that a large part of that increase [in player compensation] was due to free agency and the end of the reserve system? A. I would think so, sure...").

⁵² Blair Dep. at 45:18-46:8 ("Do you agree that [a right of first negotiation] could impede competitive bidding? ... A. So, well, sure...").

Zuffa rather than a rival promoter.⁵³ To illustrate this latter point, imagine a fighter is worth \$100,000 to Bellator and \$150,000 to Zuffa, as in the example provided by Prof. Topel.⁵⁴ Without a right to match clause, Zuffa would agree to pay the fighter something between \$100,000 and \$150,000. Thus, Zuffa and the fighter would split the surplus. Dr. Blair admits that with a right-to-match clause, Zuffa only has to pay the fighter \$100,000, and Zuffa gets to keep the entirety of the surplus.⁵⁵ Dr. Topel agrees.⁵⁶

IV. DR. BLAIR'S SWITCHING ANALYSIS FAILS TO ANALYZE WHETHER ZUFFA WANTED TO RETAIN THE ATHLETE

27. [REDACTED]

[REDACTED]⁵⁷ [REDACTED]

⁵³ Blair Dep. at 349:8-350:22.

⁵⁴ Topel Report ¶ 101.

⁵⁵ Blair Dep. at 349:8-350:22.

⁵⁶ Topel Report ¶ 101 (" [REDACTED]

[REDACTED]).

⁵⁷ See Blair Report ¶ 37.

[REDACTED]

[REDACTED] .⁵⁸

V. MY USE OF LABOR SHARE TO MEASURE DAMAGES IS PROPER

28. Dr. Blair takes issue with my use of the share of revenues received by athletes in an organization as the comparative measure of the level of monopsony power in order to calculate damages.⁵⁹ Instead of measuring relative monopsony power by comparing wage share of revenues, Dr. Blair concludes that the proper method to measure monopsony power is to find the difference between the fighter's marginal revenue product or "MRP" and the compensation paid the fighter. Drs. Oyer and Topel reach similar conclusions, though neither even attempts to measure any fighter's MRP.⁶⁰ In a world of perfect information, economic theory would measure damages by attempting to determine whether athletes, in this case fighters, are being paid below their MRP as a result of anticompetitive conduct. Unfortunately, it is not possible to measure athletes' MRP directly in part because it is difficult to measure what a worker adds, while

⁵⁸ [REDACTED]

⁵⁹ Dr. Blair is not alone in his criticism of the use of labor share. Drs. Oyer and Topel also argue that labor share is not an appropriate measure of monopsony power. The following analysis and explanation applies equally to those criticisms.

⁶⁰ Similarly, Dr. Oyer also claims that "to really compare across sports as [I do], one would have to know the distribution of talent relative to fan demand and willingness to pay." A sports organization's willingness to pay reflects the athletes' MRP as determined by fan demand, and thus this criticism is essentially identical. Oyer ¶ 57.

holding every other input to revenues constant. However, given that the athletes appear to play as important (if not more important) a role in generating revenues in MMA as in my yardstick sports, the ratio of fighter compensation to event revenues (otherwise known as wage share) is a plausible proxy for the share of MRP that fighters are being paid. Accordingly, my comparison of the wage share of event revenues provides a reliable methodology to measure the amount that Zuffa's challenged conduct has suppressed fighter wages below the levels that would exist in a more competitive market with fewer restrictions on athlete mobility.

A. **Athlete MRP is Difficult to Measure Empirically**

29. As Dr. Blair explains, the MRP of labor is equal to the value of the increase in output a firm obtains by hiring one additional unit of labor, holding all other inputs constant. In a competitive market, economic theory predicts that employees would be paid their MRP.⁶¹ A firm's monopsony power can thus be expressed as the amount that the firm is able to suppress wages below the MRP of labor. Economists define the level of "monosponistic exploitation" as the amount that wages are suppressed below MRP.⁶²

30. MRP is a useful concept for understanding the exercise of monopsony power, but there is no accepted way to empirically measure MRP of labor in the economics literature. Indeed, the sports industry is one of the few areas where economists have attempted to actually measure the MRP of labor. This is because we have so many concrete measurements of what a player produces in sports: points, assists, rebounds or blocked shots, etc. in basketball; completed passes versus attempts, yards gained, catches made, tackles, sacks, etc. in football; and home

⁶¹ Blair Dep. at 58:1-10 ("the monopsonist is not going to employ inputs to the point where the marginal revenue product is equal to ... the price of the input. Instead, it's going to operate where the marginal expenditure on the input is equal to the marginal revenue product. Now, that's going to be lower than the quantity that would materialize if the firm acted as a competitor and employed to the point where marginal revenue product is equal to the price.").

⁶² See, e.g., SPORTS ECONOMICS at 353.

runs, hits, BA, SLG, OPS, WAR, ERA, strikeout-to-walk ratio, etc. in baseball. The attribution of output to a particular athlete is easier in baseball than in the other team sports because the production function in baseball is more individualistic, while it is more collective in the other team sports. That is, in baseball whether the batter hits a home run or a double is a function almost solely of that batter's acumen versus the pitcher's acumen. In football, whether a quarterback completes a pass or not is a function of the strength of his offensive line, the speed and moves of his receivers, the coach's design of the play, the ability of the team to establish a running game, various attributes of the defensive team, etc. Combat sports, including MMA, should be more similar to baseball in the attribution of output to a particular athlete because the sport consists only of two fighters in a ring/octagon competing with each other.

31. Given the relatively easier ability to measure a baseball player's MRP compared to that in football, basketball or hockey, let us first consider the economic literature on measuring MRP in baseball. I will then explain why insufficient data and other problems make it impossible to derive an exact measure of fighter MRP in MMA.⁶³

32. In 1974, Gerald Scully published his seminal article "Pay and Performance in Major League Baseball" in the *American Economic Review*.⁶⁴ Prof. Scully laid out a two-stage method to estimate a ballplayer's MRP. The basic idea was first to run a regression of team wins on a measurement of player offensive (*e.g.*, batting average) and player defensive performance (*e.g.*, earned run average for a pitcher), along with control variables, to see how an increment in batting average or earned run average affected the number of team wins. The second step was to run a regression of team revenue on team wins to discern how an additional win affected team

⁶³ In his deposition, Dr. Oyer acknowledges both the difficulty of measuring MRP and the likelihood that in those jobs where MRP is more easily measured, "the worker is more likely to be paid in proportion to the revenue that the worker generates." Oyer Dep. at 74:21-75:14.

⁶⁴ Volume 64: 915-930.

revenues. By linking the two equations, one could deduce how much an increment in batting average or earned run average could impact team revenues and one would thereby have an estimate of a player's MRP.

33. Prof. Scully's model was a step forward in thinking about MRP measurement for athletes, but it was still flawed for a number of reasons.⁶⁵ First, Scully did not use the best measurements of player performance. Second, Scully did not correctly identify the output of a baseball game. Scully's model implicitly assumed that the team's outcome objective was the number of hits or some other measurement of individual performance. But hits are not a final product, they are an intermediate product. The final desired product is wins. Scully's model misleadingly attributed positive output to an individual hit. Hence, a player who had one hit in 500 at bats was considered by Scully to make a positive contribution to the team's objective function. Yet, such a player, given the mean batting average in the league of around .250 and his average being a paltry .002, would much more likely be contributing to team losses and decreasing the number of wins. That is, the player would have a negative output. The result was that Scully's model was significantly overestimating the players' MRP. Third, the relationship between wins and revenue, albeit statistically significant, is not linear, as Scully postulated. Rather, it is a complicated curvilinear relationship that appears to be best estimated by a ninth degree polynomial.⁶⁶

⁶⁵ I discuss these flaws at greater length in "Salaries and Performance: Beyond the Scully Model," in P. Sommers (ed.) *Diamonds Are Forever: The Business of Baseball*. Washington, D.C.: Brookings Institution Press, 1992. Many others do so as well. *See, e.g.*, Anthony Krautmann, "What's Wrong with Scully-Estimates of a Player's Marginal Revenue Product," *Economic Inquiry* 37(2):369-381, 1999.

⁶⁶ *See, e.g.*, A. Zimbalist, "Sport League Design: Incentive and Performance in Major League Baseball," in Buch et al. (eds.) *Sport Und Okonomie*. Indianapolis: Meyer & Meyer Verlag, 2012.

34. Since the publication of the Scully model and some of its early critiques, there have been numerous modifications and alternative models proposed. Some of these do indeed improve upon the Scully model, though none of them has resolved all of its basic problems.⁶⁷ Thus, even though measuring MRP in baseball should be easier than in other sports, and even though measuring athletes' MRP should be easier than for most other workers in the economy, the exact measurement of MRP in baseball remains elusive.

B. **My Comparison of Athlete Compensation to Revenue Is a Reasonable Proxy for MRP**

35. As Dr. Blair admits, in the UFC, a similar set of data and conceptual issues impedes accurate measurement of MRP.⁶⁸ In particular, while the labor and identity of the fighters featured are a major factor in the revenue generated by a marginal event, it is difficult to separate out the contribution of one fighter from another, as well as how much of the incremental revenue should be attributed to the other bouts on the card, to the television network and its promotion of the event, the interest of the news media in the event, or the selection of the arena in which the event takes place, among other things.

⁶⁷ The most recent elaboration of the model involves the use of the sabermetric concept WAR or wins above replacement. Here, it is assumed that there is an elastic supply of replacement players who could rise from Triple A baseball (the top minor league level) to play an acceptable level of major league ball. Each player's productivity is measured in relation to these replacement level players and measured by as many additional wins to his team he would provide each year above a replacement player. The problem with this approach is twofold: first, it assumes that the MRP of replacement players is equal to the collectively bargained minimum salary in baseball (\$545,000 in 2018) and, second, there is an elastic supply of replacement players at a uniform talent level. While there is a large supply of minor league players who arguably could play in the major leagues, they are not all of equal talent. In 2017 on opening day, there were 60 players out of 750 (8 percent) on the active 25-man rosters who were being paid the league's minimum salary of \$535,000. There were 351 players (46.8 percent of all active-roster players not on the disabled list) who were being paid less than \$600,000.

⁶⁸ Blair Dep. at 305:7-11 (Supposing there are only two inputs to MMA events, athletes and venues, "revenue [is] zero if either one of those things is zero. So, having put on the event ... allocating ... a portion of the revenue to each of them would be ... pretty difficult.").

36. My use of the ratio of fighter compensation to event revenue offers a reasonable resolution to this problem. Dr. Blair appears to agree that a proper measure of damages could be obtained by comparing the amount of monopsonistic exploitation in the actual world to a world absent the challenged conduct.⁶⁹ The degree of exploitation is the amount that wages diverge from MRP. It can be expressed as a ratio w/MRP , where “w” represents wages, and MRP is the marginal revenue product of the fighters. Because MRP cannot be measured directly, I instead measure the ratio of compensation to a reasonable measure of athlete-related revenues – such as event revenues in MMA.⁷⁰ If the ratio of MRP of labor to revenue is the same in both MMA and in my yardsticks, my analysis is equivalent to comparing the wage to the MRP of labor. Dr. Blair admits that he does not have “[a]ny reason to believe that the ... ratio of the marginal revenue product of labor to total revenue in any of the yardstick sports is higher or lower than that ratio in MMA.”⁷¹

37. If the ratio of MRP of labor to total revenue is no higher in my yardstick sports than in MMA, substituting (Athlete Comp/Revenue) for (Athlete Comp/MRP of Labor) would lead to an accurate or conservative estimate of damages. In other words, using a measure of actual revenue instead of MRP of labor only biases my damages estimate upward if the athletes

⁶⁹ SPORTS ECONOMICS at 368 (“The NCAA puts strict limits on the compensation of student-athletes. No one, even the premiere players, may receive more than a full grant-in-aid, which is defined as tuition and fees, room and board, and books. Because the NCAA is a buying cartel, one should expect some monopsonistic exploitation, that is, gap between an athlete's marginal revenue product in the monetary value of the grant-in-aid.”).

⁷⁰ Dr. Blair incorrectly writes that I calculate “Zuffa’s pay-to-revenue ratio (PTRR) as the ratio of UFC athletes’ compensation to Zuffa’s total revenue.” Blair Report ¶ 43. This is not accurate. I explicitly state that I compare athletes’ compensation to *event* revenue, which is the revenue attributable to the events put on by the athletes. Zuffa has several other ancillary revenue streams that I do not include. These are discussed in my initial report.

⁷¹ Blair Dep. at 315:1-8 (“I haven’t thought about that specifically, so as I sit here today, I don’t really have an informed response for you.”).

in my benchmark sports are responsible for a greater share of the relevant revenues than MMA fighters are responsible for. However, as Dr. Blair admits, there are many other input factors in my yardstick sports other than athlete labor, suggesting that the athlete MRP in MMA is *at least* as large a proportion of total revenue as it is in the yardsticks. For example, in baseball he explains that in addition to the athlete's labor, fan appeal derives from the venue, umpires, the amenities, parking facilities, and promotion by the league.⁷² The NFL has similar inputs.⁷³ "As a general proposition, you need the same sorts of [inputs]" in the NBA and NHL.⁷⁴ In boxing, he notes that one of the major inputs besides athlete labor is the promotion in the months or weeks leading up to the event, as well as judges, venue, training facilities, managers, coaches, and equipment.⁷⁵ The presence of these inputs in my yardstick sports is consistent with the proposition that non-athlete inputs contribute just as much, if not more, to total revenue in my yardsticks as they do in MMA.

38. In short, while Drs. Blair, Oyer, and Topel are insistent on the use of the absolute level of MRP (or the natural log of MRP) as the basis for any damages calculation, the accurate direct measurement of MRP is not practical. However, my damages analysis provides a conservative approximation of the amount that fighters would get paid if the level of monopsonistic exploitation were on par with the more competitive (labor market) yardstick sports.

C. Zuffa and Its Economists Use Wage Shares

⁷² Blair Dep. at 307:1-309:2.

⁷³ Blair Dep. at 309:6-311:22.

⁷⁴ Blair Dep. at 312:11-13.

⁷⁵ Blair Dep. at 313:4-24.

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⁷⁷ ZFL-1425511 at 16-17; ZFL-1070290 at 327.

⁷⁸ ZFL-1081154 at 54.

⁷⁹ ZUF-00113209 at 11.

[REDACTED]

⁸⁰ [REDACTED]

[REDACTED]

[REDACTED]

⁸¹ [REDACTED]

[REDACTED]

⁸² [REDACTED]

[REDACTED]

⁸³

41. [REDACTED]

[REDACTED]

[REDACTED]

⁸⁴

42. These documents indicate that Zuffa, its consultants, and its acquiring company clearly saw the ratio of athlete compensation to revenue in other sports leagues to be a relevant yardstick for the purposes of evaluating the competitiveness (or lack thereof) of UFC's fighter compensation.

43. Zuffa also commissioned a study by Dr. Blair for presentation before the Federal Trade Commission.⁸⁵ In Table 8 of this study, Dr. Blair himself compares the Zuffa fighter share in revenue with those of athletes in other sports.⁸⁶ In so doing, he is doing both of the things for

⁸⁰ ZFL-0557588 at 91 (emphasis added).

⁸¹ [REDACTED]

⁸² [REDACTED]

⁸³ ZFL-2700585, passim.

⁸⁴ WME-ZUFFA-00005368.

⁸⁵ ZFL-2698896 ("Presentation of Observations Based on MMA Data (Roger D. Blair, Ph.D.)")

⁸⁶ [REDACTED]

which he criticizes my report: using athlete share, which he now states has no basis in economic theory; and using athlete shares in other sports as comparators, which he now claims should not be done without controlling for all the differences among the sports. Dr. Blair includes MLS as a comparator sport in his FTC analysis, but as Dr. Blair admits, MLS, like Zuffa, has a monopsony in the market for top-level, professional soccer players in the United States and thus is not an appropriate comparator of a competitive league.⁸⁷

44. Dr. Topel, another of Zuffa's economists in this case, also uses labor share to evaluate the treatment of NFL players in a report he co-authored for the National Football League Players Association.⁸⁸

D. Sports Economists Regularly Use Wage Share

45. The scholarly literature in the area of sports economics widely uses player payroll as a share of revenue to discuss and compare the degree of labor underpayment in the various leagues. *The Journal of Sports Economics* and *The International Journal of Sport Finance* as well as standard, general journals in economics, such as *The Journal of Economic Perspectives*, *The American Economist*, *The Review of Industrial Organization*, among others, have published

⁸⁷ Blair agrees that in MLS, "the league essentially owns all of the teams. And, you know, and therefore is hiring soccer players to fill out the rosters on ... a kind of league-wide basis." Blair Dep. at 325:10-13. He also admits that means "the major league soccer teams aren't competing with each other for talent in the way that the teams are in baseball ... for free agents." Blair Dep. at 325:15-19 ("Yeah. I believe that's correct."). Two other organizations (both in tennis) cited by Dr. Blair in his table, ATP and the US Open, both function as effective monopsonies, as the sole organizers of the men's professional tennis tour and the sole organizer of the U.S. wing of the Grand Slam, and are therefore not appropriate competitive benchmarks.

⁸⁸ Kevin Murphy and Robert Topel, "The Economics of NFL Team Ownership," Chicago Partners (Jan. 8, 2009) available at <http://pirate.shu.edu/~rotthoku/papers/The%20Economics%20of%20NFL%20Team%20Ownership.pdf>.

articles that use labor share to discern monopsony power. Even standard texts in introductory economics have used labor share when referring to sports economics.⁸⁹ As an article by Prof.

James Monks explains:

A common method of estimating the degree of monopsony control of an industry or employer is to compare the marginal revenue product of an athlete to his or her compensation. This exercise is fraught with difficulties and complexities under the best of circumstances, and clearly is untenable when considering millions of athletes across numerous sports. An alternative mechanism for establishing the degree of monopsony control in a sporting industry is to examine the share of revenue returned to the players. *Economists have often used the share of revenue returned to the players in the form of salaries as evidence of the degree of monopsony control.*⁹⁰

46. One important reason why the economics literature on sports labor markets refers to labor share is that the production function of a sports contest is extremely labor intensive. The athletes are the product. Fans go to watch the athletes. If the athletes perform well, more fans watch. If the athletes perform at a championship level, still more fans watch. The MRP of athletes and the total revenue of the team or sport generally move in lockstep.⁹¹ So, even though

⁸⁹ See, for instance, the text *Microeconomics* by Robert Pindyck from M.I.T. and Daniel Rubinfeld from the University of California at Berkeley, Pearson, 8th edition, 2013, p. 549, where they write referring to the elimination of the reserve clause in baseball in 1976: “The result was an interesting experiment in labor market economics.... Before 1975, expenditures on players’ contracts made up approximately 25% of all team expenditures. By 1980, those expenditures had increased to 40%.”

⁹⁰ James Monks, “Revenue Shares and Monopolistic Behavior in Intercollegiate Athletics,” *Cornell Higher Education Research Institute WP 155* (September 2013), at 3 (emphasis added), available at <https://www.ilr.cornell.edu/sites/ilr.cornell.edu/files/WP155.pdf>.

⁹¹ For this reason, Dr. Blair’s stylized graphical presentation is misleading as a way to represent real labor markets in sports. See Blair Report at Figure 3 and ¶¶ 43-47. Dr. Blair purports to show that economic theory firmly establishes that the compensation share can vary widely across competitive markets. Of course, this simple proposition is valid, depending on other characteristics of the industry in question, such as the labor intensity of the production process. Nonetheless, he produces a stylized graph with two different MRP curves (suggesting differing degrees of labor or capital intensity in the two industries, a basic point that he overlooks) and proceeds to derive formulae for the labor share in each case. The particular example that Dr. Blair chooses depends upon two unrealistic assumptions: one, that MRP of labor when the firm hires zero laborers exists and is very high and, two, that the two industries have an identical

the MRP of an individual athlete might be hard to measure, the growth of a sport's revenue and the growth of athletes' MRP are closely related. As I wrote in my initial report, the opening of labor markets to competitive bidding in each professional team sport corresponded with a rapid jump in labor shares of revenue in each sport. Labor share historically has been a powerful predictor of the degree of monopsony power exercised by owners of sports teams.

47. Lastly, there is an extant literature in economics outside of the sports industry that recognizes the use of labor shares as an indicator of monopsony power. Dr. Oyer has contributed to this literature, among many others.⁹² For example, in a 2011 article published in the *Handbook of Labor Economics*, Dr. Oyer reviews so-called "principal-agent" models of compensation, which analyze the ways in which firms provide incentives to their employees.⁹³ As Prof. Oyer observes, the theory predicts that employers will structure their compensation according to an

perfectly elastic supply curve at the same wage. A worker's MRP is more typically represented as starting at some positive number of workers, then rising at first, before it eventually turns down and passes through the ARP (average revenue product) curve. In the long run, the equilibrium of a competitive labor market is generally depicted at the intersection of an elastic labor supply curve and the MRP and ARP curves. In the sports I have chosen as yardsticks, labor's MRP curves would not deviate from each other in the way the MRP curves do in Dr. Blair's stylized graph. And as I describe above, all that matters for the purpose of my yardstick analysis is that the ratio of MRP of labor to revenue in each of my yardsticks is no higher than in MMA. For a similar reason, Dr. Blair's comparison of two NFL teams that had different labor shares due to disparate revenues, despite similar payrolls, is inapt because it is comparing two franchises in the same industry that face an open labor market (subject to a salary cap), whereas the issue in question in this matter is how the *absence* of labor market competition impacts wages.

⁹² See, for instance: David Autor et al, "Concentrating on the Fall of the Labor Share," *American Economic Review: Papers & Proceedings* 107(5): 180-186 (2017); and Michael Elsby et al., "The Decline of the U.S. Labor Share," *Brookings Papers on Economic Activity*, 1-42 (2013).

⁹³ Paul Oyer and Scott Schaefer, *Personnel Economics: Hiring and Incentives*, in ORLEY ASHENFELTER AND DAVID CARD, IV THE HANDBOOK OF LABOR ECONOMICS, Ch. 20 (2011).

“optimal sharing rule,” which determines the share of output that employees are paid. Prof. Oyer acknowledges a similar point in his deposition.⁹⁴

48. Notably, none of Zuffa’s expert reports provides substantiation in the economics literature that absolute wage levels is the only appropriate way to measure monopsonistic exploitation, or that it is inappropriate to use labor shares.

E. **Uniform Practice in Professional Sports Leagues is to Use Compensation Share**

49. Even if one could validly argue that labor share is not discussed in the economics literature, it would be an indictment of the literature rather than a critique of the labor share as an appropriate concept to understand underpayment. This is because, as Dr. Blair recognizes, each of the sports leagues refers commonly to its labor share in revenue, and the three major sports leagues with salary cap systems base their caps on labor share.⁹⁵ That is, the practitioners of the sports themselves have chosen to use labor share as the single metric with which to identify a suitable payment to their athletes. When they collectively bargain, the league owners as well as the players’ association use economists and finance experts to help them settle upon an appropriate labor share. I have worked in such a capacity in the NBA, MLB and the NFL. Indeed, Dr. Topel’s colleague and frequent co-author at the University of Chicago, Kevin Murphy, has consulted with National Basketball Players Association in collective bargaining and is thus well aware of the centrality that labor share plays in defining the league’s salary cap. The

⁹⁴ Oyer Dep. at 200:20-201:12 (“Q. ... So in the thicker labor market with more employers and more workers, all else equal, what we expect is greater surplus and greater productivity, but any given firm is likely to get a smaller share of that surplus because the competition, among other things, can force the firm to pay higher wages to the worker? A. [Y]eah. And – exactly.”).

⁹⁵ Blair Dep. at 175:22-176:177:19 (“A. ... I think that all of those contracts They’re specified in terms of shares of ... some amount which is defined ... as revenue. Q. So, through collective bargaining in the NFL, the NBA, and the NHL, the players in the leagues are splitting some measure of league revenue; is that right? A. Yes.”).

players rightfully believe that looking at their wage level alone in isolation from league-wide revenues is meaningless. They believe that they are entitled to a certain share of the revenues that they generate for the league. Hence, they bargain principally over labor share. Correspondingly, the owners believe that putting a cap on the share of revenues that goes to the players guarantees the financial solvency of their teams and gives them the best chance of earning a fair return on their expensive investments in purchasing their franchises.⁹⁶

50. It is noteworthy that each of the salary cap leagues have salary share either at or just under 50 percent of defined revenues. The leagues share the common characteristics of being labor intensive, as do all sports; of having robust competition among teams in their labor markets; and of depending on the same revenue sources (media contracts, live gate, food/beverage and catering services, corporate sponsorships, and memorabilia). The overwhelming dependence on the talent of athletes to generate revenue also means that the sports industry is dependent on the emotional and physical health of athletes, as well as their sport-specific talents, and is vulnerable to possible work stoppages. As Bob Arum notes in his deposition: “We are dealing with human beings.”⁹⁷ As a result, sports industries experience a level of unpredictability and revenue instability. Thus, despite their differences in some details, such as playing in venues of varying sizes, length of season, indoor versus outdoor, coverage by television networks, ethnic and age composition of the fan base, *inter alia*, these industries have all ended up with roughly 50 percent and above of revenues going to the players.

51. Although these leagues are all characterized by aggressive bidding among the teams for player talent, certain competitively bargained constraints that are intended to promote

⁹⁶ [REDACTED]

⁹⁷ Arum Dep. at 48:2.

competitive balance and financial stability prevent these labor markets from being entirely free markets. As such, as I pointed out in my initial report, the existence of various labor market constraints (such as the salary cap, individual player maximums, luxury taxes, debt limits, and revenue sharing across teams) means that the labor share in these leagues is lower than it would be in a perfectly free market. Many of these constraints are put in place to promote competitive balance among the teams. Competitive balance is not a feature that individual sports, such as MMA, have had to focus on. The fact that my damages estimate is based on these leagues with constrained, though relatively open, labor markets renders my estimates conservative.

VI. MY YARDSTICK METHODOLOGY IS PROPER

52. As elaborated in the preceding paragraphs, Zuffa itself has engaged in extensive benchmarking with other individual and team sports, using labor share, as a method either to assess the fairness of its practices or the high profitability of the same. Zuffa does not appear to have compared its labor share to other industries outside of sports. In its comparison of its labor share to that in other sports, Zuffa was at first complacent that its share was comparable, but later realized that it was considerably below other sports. Zuffa then felt compelled to offer explanations to justify its relatively low share. I considered these alleged justifications in my initial report. Dr. Blair has engaged in similar benchmarking (discussed above).

A. The Yardsticks I Have Selected Are Appropriate

53. The yardstick method I use to calculate damages, namely, selecting a group of comparators with as much similarity as possible with the target industry or company is one that is used commonly in real estate appraisals. It is also one of the three basic methodologies (comparable sales) employed to value companies: asset based valuation; discounted cash flow valuation; and, comparable sales valuation. More importantly, as Dr. Blair admits, the yardstick

approach is a “recognized” approach to calculating damages.⁹⁸ However, he claims that my yardstick approach is not acceptable because my comparators are not sufficiently similar to UFC, save the different organizations of their labor markets.

54. In his book, *Monopsony in Law and Economics*, Dr. Blair writes that “[t]he process of actually proving the damages the party is entitled to recover is a very different one than determining whether the plaintiff has antitrust standing. ... In comparison with the burden of proving the *fact* of damage, courts traditionally have applied a very relaxed standard to the level of certainty with which the *amount* of damages must be shown.”⁹⁹ Dr. Blair reasoned that this was because “proof of antitrust damages can be complex, and an exacting standard of proof would result in many wrongdoers escaping penalty.”¹⁰⁰ Dr. Blair concludes that damages thus may be estimated by “just and reasonable inference.”¹⁰¹ My yardstick analysis readily meets this standard.

55. Although I agree with the principle that the comparator(s) should closely approximate the market of the target company but-for the impact of the alleged antitrust violation, the level of similarity for a yardstick demanded by Dr. Blair in his report is impractical. More importantly, as described in the prior section, because the purpose of my yardstick analysis is to measure the level of monopsonistic exploitation of athletes that would prevail if there were more competition for MMA fighters’ services, what is required for my yardsticks to be reliable (or conservative) is that the ratio of the MRP of labor to revenue is no higher in the yardsticks than in the UFC.

⁹⁸ Blair Dep. at 333:24-334:1 (“And consequently ... an alternative approach, which is ... recognized, is the yardstick approach.”).

⁹⁹ BLAIR & HARRISON, *supra* n.2., at 168 (emphasis original).

¹⁰⁰ *Id.* at 169.

¹⁰¹ *Id.*

56. In his deposition, Dr. Blair articulates a more realistic standard for choosing an appropriate yardstick. According to Dr. Blair, to evaluate a yardstick an economist should ask: “are these entities comparable in a variety of things? ... are they offering ... the same product? Do they have the same quality management? ... are they engaged in the same sort of promotion? ... to the extent that the goods and services being produced by the yardstick are different ... are they similar enough ... to draw an inference about the plaintiff based on the performance of the yardstick.”¹⁰² My yardsticks satisfy this standard.

57. All of my chosen comparators are from the sports world. As I pointed out above, each of the comparator sports share with the UFC the fundamental characteristic that the athlete essentially *is* the product and that the production function is extremely labor intensive.¹⁰³ As such, these sports experience an inherent variability in revenue from one year to the next, due to the variability of the physical and emotional health of the athletes. They also share the characteristic that their principal revenue sources are identical: gate, premium charges, media revenue, signage and sponsorship revenue, and memorabilia sales. In addition, as discussed in the prior section, they experience similar costs to MMA promotion in addition to athlete labor. When Zuffa undertook or commissioned studies on its labor market, it too chose comparators in the sports industry.¹⁰⁴ The same is true of Dr. Blair’s study for Zuffa presented before the

¹⁰² Blair Dep. at 335:24-336:9.

¹⁰³ For this reason, Dr. Oyer’s criticism of me for not selecting yardsticks from a non-sports industry makes no sense. Oyer Report ¶ 56.

¹⁰⁴ [REDACTED]

FTC.¹⁰⁵ In contrast, none of the distinguishing characteristics identified by Zuffa's experts undermines my choice of benchmarks.

1. Age, Scale and Scope of Benchmarks

58. [REDACTED]

[REDACTED]¹⁰⁶ [REDACTED]

[REDACTED]¹⁰⁷ [REDACTED]

[REDACTED]¹⁰⁸ [REDACTED]

[REDACTED]¹⁰⁹ [REDACTED]

59. Dr. Blair further opines that one of the reasons why the fighter wage share is lower in Zuffa than in my yardstick sports is that the sport of MMA is relatively young.¹¹⁰ This argument is similar to stating that Zuffa is distinguishable because its revenues are lower than those of team sports today. As demonstrated in my initial report and above, revenue level does

¹⁰⁵ See Blair Dep. at 254:25-255:3 [REDACTED]

¹⁰⁶ Oyer Report ¶ 58.

¹⁰⁷ Blair Report ¶ 64.

¹⁰⁸ Zimbalist Report ¶¶ 118-119, Tbl. 3.

¹⁰⁹ Oyer Report ¶ 40.

¹¹⁰ Blair Report ¶ 66.

not appear to be a relevant factor over the revenue ranges of the various comparator leagues I have identified.¹¹¹

2. Cost Structure

60. In her expert report for Zuffa, Ms. Elizabeth Davis criticizes my analysis of the production costs Zuffa incurs. Ms. Davis cites her “understanding that Zuffa differs from other professional sports organizations in that it bears all of the costs of producing and promoting its content for broadcast.”¹¹² Ms. Davis does not, however, provide any citation or basis for that understanding—which is problematic because it appears to be fundamentally incorrect. For example, Ms. Davis cites Zuffa’s employees and executives’ self-serving conclusory statements that the UFC “differs from other sports entities” in the costs it bears relating to production.¹¹³ However, the owners in my yardstick sports bear similar costs related to production. For example, the NFL team owners bear at least some of these costs of producing and marketing NFL telecasts, including those incurred in the production of NFL League Pass, NFL Red Zone and NFL Network. In addition, as I explained in my opening report, team owners in MLB, the NBA, and the NHL often own their own regional sports networks (RSNs), and therefore also cover their television production costs.¹¹⁴ Ms. Davis fails to respond to any of these observations. Thus, Ms. Davis fails to provide appropriate foundation for her incorrect conclusion that I have failed to take steps to account for the production cost differences between the comparators and Zuffa in my analysis.

¹¹¹ Zimbalist Report ¶¶ 118-119, Tbl. 3.

¹¹² E. Davis Report ¶ 91.

¹¹³ *See, e.g.*, E. Davis Report ¶ 92.

¹¹⁴ Zimbalist Report ¶ 132.

61. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

62. In my opening report, I pointed out in ¶ 120 and ¶ 133 that the four major team sports leagues incur a variety of expenses that are not incurred by Zuffa and, in ¶ 130 and ¶ 131, that Zuffa's television production costs, properly valued, are not so different from those incurred by many teams.¹¹⁶ Further, in corroboration I offered data in paragraphs 134-137 on the extraordinarily high EBITDA margins that Zuffa and its owners have enjoyed.

3. Collective Bargaining

63. Dr. Blair also asserts that the team sports cannot be compared to the UFC, because the athletes in the UFC are independent contractors, have no union, and do not collectively bargain.¹¹⁷ However, the presence of collective bargaining in the team sports does not undermine their comparability as yardsticks. This is because the primary way that the players' unions have helped the athletes obtain a larger share of the league's revenues is by

¹¹⁵ E. Davis Report ¶ 22.

¹¹⁶ [REDACTED]

¹¹⁷ Blair Report ¶ 65.

negotiating for rules that increase the ability of athletes to become free agents and benefit from labor market competition. Indeed, Dr. Blair admits that although collective bargaining leads to salary caps in certain leagues, “the actual salaries that the players end up negotiating with their teams are determined by market forces for free agents.”¹¹⁸ Blair admits that because of free agency, salaries for free agents approach the competitive outcome in the NBA and the NHL. In the NBA, “as long as the clubs do not collude ... a player can negotiate ... very close to his marginal revenue product.”¹¹⁹ In the NHL, “salaries are substantial as they are protected by market forces through free agency.”¹²⁰

64. Even to the extent the players’ unions negotiate some aspects of players’ compensation, such as league-wide minimum salaries and benefits, Blair admits that “to some extent” the outcomes of such bilateral monopoly negotiations between the players unions and the leagues “resemble the competitive outcomes[.]”¹²¹

65. Moreover, boxers are not unionized and do not collectively bargain, and the relatively higher labor share paid to boxers further supports my analysis that using collectively bargained comparator leagues results in a conservative damages model.

66. Purportedly to bolster his argument that the wage share in the league sports results from collective bargaining rather than competition in the labor markets, Dr. Blair cites and misrepresents an article by Berri et al., arguing that Berri found that players generate only 26 percent of the revenue but are paid around 50 percent because of the union’s impact.¹²² However,

¹¹⁸ Blair Dep. at 177:13-19.

¹¹⁹ Blair Dep. at 174:18-23.

¹²⁰ Blair Dep. at 175:3-7.

¹²¹ Blair Dep. at 169:23-170:10.

¹²² David Berri, Michael Leeds & Peter von Allmen (2015), “Salary Determination in the Presence of Fixed Revenues,” *International Journal of Sport Finance* (10), p. 10.

Berri et al. do not conclude from their analysis that the players' MRP in fact represents only 26 percent of revenue. Instead, they conclude "[g]iven that owners across four different industries (sports) are unlikely to make systematic errors of this magnitude, we must reconsider the assumptions underlying the link between productivity and revenue ... More generally, we are left with the observation that *there is no way to measure a player's MRP in sports.*"¹²³ This, as noted above, is why I appropriately use wage share of revenue as a proxy for MRP.

4. Other Restraints on Free Agency in Team Sports

67. Dr. Blair argues that I did not take into account the possible influence of player drafts, salary minimums, salary caps, luxury taxes and restricted free agency in the four major team sports leagues.¹²⁴ This is false. As I explained in my opening report, such labor market restrictions on perfectly free competition in my yardstick sports makes them conservative yardsticks and reduces the size of my estimated damages. They represent a but-for world with open, yet not perfectly free, labor markets.

68. Indeed, Dr. Blair agrees that the empirical research indicates that even with collective bargaining, free agents make something slightly less than the competitive wage, and players who do not have free agency make substantially less than that.¹²⁵ Dr. Blair agrees that "whether athletes are exploited in the sense that their marginal revenue product exceeds the wage the team pays them is an empirical question" and that the empirical research indicates that "athletes have been paid less than they are worth to the team. Some athletes are still being exploited in this sense, even though salaries are extremely high for many of them."¹²⁶

¹²³ *Id.* at 11 (emphasis added).

¹²⁴ Blair Report ¶ 68.

¹²⁵ Blair Dep. at 161:5-158:6.

¹²⁶ Blair Dep. at 161:5-163:23.

69. Further, Dr. Blair errs in suggesting that salary minimums play an important role in determining the player share in MLB. In 2017, only 60 out of 889 players (below 7 percent) on major league teams' active rosters were paid the minimum salary of \$535,000. All other players, of course, were paid above this level. Furthermore, as I explained in my opening report, to the extent that collective bargaining in the U.S. team sports leagues has resulted in some anticompetitive contract provisions and employment practices, the effects of these provisions and practices suppress compensation to athletes, rendering my model conservative.

B. Averaging Across Multiple Yardsticks Increases Reliability

70. Dr. Blair also criticizes me for using more than one comparator. If the jury finds that any number of my yardsticks are inapt comparisons to MMA in the but-for world, it would be trivial for me to calculate damages based on single yardstick such as boxing. However, according to standard statistical principles, taking the average of several comparators should provide a more robust result. Since there are numerous random factors that could influence the player share in a particular sport, such as a new television deal, new facilities, economic conditions, strength and creativity of management, the subgroup of players who come up for free agency in any given year, work stoppages, among many others, taking the average of a larger sample of comparators abstracts from these variations and from outliers, and, hence, provides a more reliable yardstick.¹²⁷ It is notable that all the team sports, despite their differences in various details (size of facilities, number of games, number of players per team, time of season, length of training period, etc.), have player shares close to 50 percent. They share in common that their product is the athletes, that they are labor intensive and that they have open, albeit constrained, players' markets.

¹²⁷ Indeed, Blair himself admits that "the use of an average inherently masks variability" which is another way of saying the same thing. Blair Report ¶ 60.

71. [REDACTED]

[REDACTED] ¹²⁸ [REDACTED]

[REDACTED] ¹²⁹ [REDACTED]

[REDACTED] ¹³⁰ [REDACTED]

C. **Boxing Suffers From None of the Distinguishing Characteristics Noted By Zuffa's Experts**

72. Moreover, I also use professional boxing as one of my yardsticks, which suffers from none of the defects Dr. Blair suggests infect my team sport comparators. Boxing is similar to MMA in virtually every respect other than the amount of monopsony power the promoters can exercise over the athletes, and the absence or unenforceability of many of the challenged contractual terms due to the Muhammad Ali Act. Boxing has similar total revenues to UFC and is therefore of similar scale and scope. Boxing promoters have an identical business model to MMA promoters, with identical sources of revenue such as gate, PPV receipts, licensing fees, and merchandise. Boxing promoters also incur identical costs to MMA promoters, such as purses

¹²⁸ Blair Report ¶ 67.

¹²⁹ Zimbalist Report ¶¶ 136-137, tbl. 8.

¹³⁰ Arum Dep. at 15:11-19.

for athletes, advertising and promotional expenses, timekeepers, referees, judges, and medical personnel.¹³¹ They also incur some television production costs.¹³² As in MMA, boxers do not collectively bargain. Indeed, none of Zuffa's experts points to any distinguishing characteristic that would make boxing an inapt yardstick. The only criticism Zuffa's experts raise is with my calculation of fighters' share of revenue in boxing. I address that criticism below.

D. **Bellator and Strikeforce Confirm My Yardsticks are Similar to MMA**

73. [REDACTED]

[REDACTED]

[REDACTED] .¹³³ [REDACTED]

[REDACTED]

74. [REDACTED]

[REDACTED] .¹³⁴ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ,¹³⁵ [REDACTED]

[REDACTED] .¹³⁶ [REDACTED]

[REDACTED]

¹³¹ See, e.g., DiBella Dep. at 91:4-14 ("You have to pay the judge, you have to pay the referees, you have to pay timekeepers, you have to pay medicals, there are often matchmaking expenses, i.e., third parties that help identify opponents and make those deals, they're paid something, everything here is common, and event insurance."); *id.* at 52:5-55:11 ("Q. Is it fair to say that your job is essentially to sell the fight? A. Yes.").

¹³² DiBella Dep. at 53:24-54:7.

¹³³ Zimbalist Report ¶ 130.

¹³⁴ Blair Report ¶ 73; Davis Report ¶ 65.

¹³⁵ Davis Report ¶¶ 66-68.

¹³⁶ Blair Report ¶ 74.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] ¹³⁷.

75. [REDACTED]

[REDACTED]

[REDACTED] ¹³⁸ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

76. Finally, Ms. Davis claims that nine months of Strikeforce's 2011 income statements are actually projections.¹³⁹ Even if that is the case, it makes little difference to my conclusions. If I exclude the events that include "TBD" which Ms. Davis claims are projections and also evaluate Strikeforce's 2009 financial data as suggested by Davis, I find that over that alternative period of time of January 2009 through July 2010, *Strikeforce paid the exact same amount, 63% of its revenue to its fighters.*¹⁴⁰ This, of course, does not change my conclusion that Strikeforce's fighter share corroborates my selected yardsticks.

E. **Zuffa's Experts' Proposed Alternative Yardsticks Are Inapt**

¹³⁷ "When we set up Strikeforce, we set it up like a sports league that we wanted to make sure that the fighters received 65% of the revenue... I really got it from my friends at the Sharks at that time, who was our building partner, and I asked them ... how do you do it in hockey? Like how do you split the revenues with the athletes? And that's how we sit it up was based on like a hockey formula. In order to sustain the business... So I felt that that was a fair business model that we could move forward in this martial art business." Coker Dep. at 21:15-18, 25:8-25.

¹³⁸ E. Davis Report ¶ 67.

¹³⁹ E. Davis Report ¶ 71.

¹⁴⁰ See backup, Strikeforce Fighter Share.xls.

77. In his report, Dr. Blair includes a table showing the athlete share of revenue in three different sports organizations, Major League Soccer, the Australian Open, and the French Open.¹⁴¹ However, none of these sports is a good yardstick or informative as to the share of revenue UFC athletes would be paid in the but-for world, because the organizers of each of these sports have substantial monopsony power over the athletes.

78. Dr. Blair agrees that in MLS, “the league essentially owns all of the teams. And, you know, and therefore is hiring soccer players to fill out the rosters on ... a kind of league-wide basis.”¹⁴² He also admits that means “the major league soccer teams aren’t competing with each other for talent in the way that the teams are in baseball ... for free agents.”¹⁴³ Of course, in acknowledging this reality, Blair is simply accepting a widely appreciated fact that has been observed in both the media and scholarly literature and that I discussed in my deposition.¹⁴⁴

79. Blair admits the Australian Open may have monopsony power because “it’s one of only four Grand Slam tournaments... it’s one of the four most important tennis events of the year. It comes at the beginning of tennis year. And ... there’s a fairly big ... time gap between

¹⁴¹ Dr. Blair has withdrawn his analysis of ATP because he is “not confident that 13 percent is an accurate representation of the ratio of tennis player compensation to the revenue generated in the ATP.” Blair Dep. at 327:4-8.

¹⁴² Blair Dep. at 325:10-13

¹⁴³ Blair Dep. at 325:15-19 (“Yeah. I believe that’s correct.”).

¹⁴⁴ For example, in an article published in 2011, Professors Twomey and Monks analyze revenue shares as a means to infer the exercise of monopsony power by major league soccer (“MLS”) in the United States. John Twomey & James Monks, *Monopsony and Salary Suppression: The Case of Major League Soccer in the United States*, 56(1) THE AMERICAN ECONOMIST 20-28 (2011). The authors find that the MLS has a “monopsonistic structure that was designed to eliminate competition for players across teams within the league,” *id.*, and that the MLS devotes “only about 25 percent of its revenues to player salaries, compared to 50 to 60 percent in most other U.S. professional sports and professional soccer leagues.” They conclude that, because of the disparity in wage shares between MLS and these other professional sports, the MLS has been effective in exercising monopsony power over athletes. *Id.* This, of course, is highly analogous to my analysis here.

the Australian Open and the next major event, which I guess is the ... French Open. So ... the players are inclined to want to play in those events... There is a certain appeal to playing in these so-called Grand Slam events, which is undeniable. And that gives the tournament organizers ... a certain of amount of I guess you would call it monopsony power in dealing with the players and in setting what the purses are.”¹⁴⁵

80. The same characteristics that give the Australian Open monopsony power also give the French Open monopsony power. Indeed, Dr. Blair admits that “what I described with respect to the Australian Open is largely true of the U.S. Open tennis as well.”¹⁴⁶ The French Open is one of only four Grand Slam tournaments, and professional tennis players have a strong incentive to participate. In particular, because professional tennis players can and do participate in all four Grand Slam tournaments (and must, if they wish to maximize their overall compensation and career opportunities), each tournament does not need to compete directly with the others to offer additional prize money in order to attract the best tennis players. Put slightly differently, from the perspective of the players, the tournaments are in many ways complements rather than substitutes.¹⁴⁷

81. In a footnote in my opening report I pointed out that the movie industry opened up its talent market in response to an antitrust suit, raised compensation to talent and has thrived nonetheless, indicating that it is not necessary for a talent-based industry to use exclusionary conduct to lock up talent in order to thrive.¹⁴⁸ Mr. Marks’ entire report appears to respond to a

¹⁴⁵ Blair Dep. at 328:23-329:21.

¹⁴⁶ Blair Dep. at 331:18-20.

¹⁴⁷ To be sure, the four grand slam tournaments coordinate with each other as well as with the ATP and WTA in ways that suppress labor market competition for the players, which also makes them inappropriate benchmarks.

¹⁴⁸ Zimbalist Report n.54.

misinterpretation of that single sentence in one footnote. However, he offers no response to my argument that the entertainment industry thrived after the demise of the studio system. Instead, he offers an opinion on actors' compensation share of revenue in the film industry. But I never suggested that talent revenue shares in movies should be a relevant yardstick to assess Zuffa's fighter compensation share in the but-for world, and Mr. Marks offers no reason to believe it should be.

82. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

F. **My Calculation of Fighters' Revenue Share In Boxing Is Accurate**

83. Dr. Blair claims that the boxing data from Golden Boy which I relied on in my opening report is inaccurate and instead improperly calculates Golden Boy's fighter share using incomplete data. In my opening report I relied on data which represents *all* of Golden Boy's boxing events for the period 2014 through June of 2016. The data I rely on was the same data relied on by Gene Deetz, who offered an expert report on behalf of Golden Boy in Golden Boy's litigation against Alan Haymon. Prof. Deetz submitted a declaration in that case in order to calculate Golden Boy's damages in which he testified that his calculations "analyzed all revenue

and expenses associated with each event promoted by Golden Boy from Jan 1, 2014 through June 30, 2016.”¹⁴⁹

84. [REDACTED]

[REDACTED] ¹⁵⁰ [REDACTED]

[REDACTED] ¹⁵¹ [REDACTED]

[REDACTED] ¹⁵² [REDACTED]

[REDACTED] ¹⁵³ [REDACTED]

[REDACTED] ¹⁵⁴ [REDACTED]

[REDACTED] ¹⁵⁵ [REDACTED]

[REDACTED] ¹⁵⁶ [REDACTED]

¹⁴⁹ Expert Report of Gene Deetz, CPA/ABV, ASA, CFF ¶ 48 (Sep. 6, 2016) (“Deetz Report”), *attached to* Declaration of Gene Deetz in Support of Opposition to Defendants’ Motions for Summary Judgment, Case No. 15-cv-3378, Dkt No. 327-1 (Nov. 9, 2016) (“Deetz Dec.”).

¹⁵⁰ Blair Dep. at 324:5-6 (“I have no foundation for a belie[f] one way or the other.”).

¹⁵¹ Blair Report, Tbl.2.

¹⁵² Blair Report ¶ 70 n.90 (citing GBP000001 and GBP000002).

¹⁵³ Golden Boy’s own damages expert opined that “in 2015 and 2016 Golden Boy experienced a decline in the number of Golden Boy promoted championship caliber broadcast television events and associated revenues, and a decline in the number of championship caliber boxers on televised events.” Deetz Report ¶ 31.B.

¹⁵⁴ Blair Dep. at 322:7-10 [REDACTED]).

¹⁵⁵ Blair Report ¶ 70 n. 90 (citing GBP000001 and GBP000002).

¹⁵⁶ Blair Report ¶ 70.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

85. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹⁵⁷ Bob Arum's testimony complements and supports the deposition testimony, cited in my first report, by Leon Margules.

[REDACTED]

[REDACTED]

86. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

87. Dr. Blair objects that in some cases boxing promoters' financials include payment to the boxer of another promoter.¹⁵⁹ He indicates that this might artificially inflate the boxers' share. However, his only basis for this opinion is the testimony of Robert Arum, the chief executive officer of Top Rank, Inc. Contrary to Dr. Blair's characterization, Mr. Arum testified that the fighter shares reflected in the Declaration of David Lopez include only payments that ultimately went to a fighter or were paid as directed by a fighter.¹⁶⁰

88. [REDACTED]

[REDACTED]

[REDACTED]

¹⁵⁸ Source: TR-001, Arum Dep. Ex. 2.

¹⁵⁹ Blair Report ¶ 71.

¹⁶⁰ Arum Dep. at 58:14-20 ("Q.... I'm looking at Section 3, "Payment to Fighters," are there any amounts included in Section 3 that did not go to fighters? A. Other than managers. Q. Other than payments as directed by fighters? A. No."); 59:7-8 ("Q. Does Section 3 include any amounts that were not paid except as directed by fighters? ... A. I don't believe so.").

[REDACTED]

[REDACTED]¹⁶¹.

G. **My Calculations of Zuffa's Athlete Compensation Are Commensurable With My Calculations of Athlete Compensation In My Yardsticks**

89. Ms. Davis criticizes my calculations of the athlete compensation paid by Zuffa.¹⁶²

Ms. Davis performs her own calculation in which she includes medical insurance and medical claims, participant insurance (it is not clear what the insurance is for or whether it is double counting), and other costs incurred on behalf of athletes as compensation to athletes. While these costs to Zuffa are undoubtedly athlete-related, they are not athlete compensation. These costs are common to the comparators in my yardstick analysis, but they were also not included in my computations of the player shares in the comparators. Another reason for the difference between my calculations and Ms. Davis's is that I include athlete outfitting policy as bout compensation. I discuss the reason in my report and acknowledge that it is ambiguous about whether to include these payments as bout or identity compensation. By such inclusion, I am raising my estimate of bout compensation as well as fighter share in bout revenue, and, thereby, lowering my estimate of damages. Ms. Davis refers to her calculation as conservative because it excludes travel and entertainment expenses for fighters. But, again, these are *not* included in player shares in the team sports leagues in my calculations. Thus, excluding those expenses does not render her analysis conservative.

H. **My Overall Damages Calculations Are Reasonable**

¹⁶¹ Arum Dep. at 89:15-92:2.

¹⁶² E. Davis Report ¶ 78.

90. Ms. Davis argues that my damages model is flawed because my model shows more damages than Zuffa's profits.¹⁶³ However, Ms. Davis misunderstands the correct measure of damages, which requires modeling the but-for world.¹⁶⁴ As I explained in my opening report, a static comparison of the damages to Zuffa's profits is not informative because Ms. Davis's numbers are based on a synchronic analysis. Such a static analysis ignores that in the but-for world, the quantity of MMA events would increase, providing more revenue to pay fighters, and, in addition, there would be more competition from other promoters who would be able to successfully compete for Zuffa fighters.¹⁶⁵ Hence, some of the increased compensation may be paid for by promotions other than Zuffa in the but-for world. Further, higher compensation would incentivize athletes to invest more in their own preparation and training, yielding higher quality fighters and contests, and increasing industry revenues. The increase in athlete talent and competitiveness (and league revenues) is precisely what occurred in U.S. professional team sports following the advent of free agency.

91. Finally, Zuffa's 2016 sale price of over \$4 billion to WME-IMG is more than enough to pay for damages. Zuffa's owners made that \$4 billion by systematically underpaying fighters.

I. **Other Criticisms of My Damages Analysis Are Incorrect**

¹⁶³ E. Davis Report ¶ 18.

¹⁶⁴ See, e.g., Roger D. Blair & William H. Page, "*Speculative*" *Antitrust Damages*, 70 Wash L. Rev. 423, 426-27 (1995).

¹⁶⁵ One of Zuffa's other economists, Dr. Topel, conceded my point that in evaluating the total possible damages to fighters in this case, it is inappropriate to use the amount of revenues that UFC made in the actual world, but instead should focus on the revenues that the UFC and its competitors would have made in the but-for world. See, e.g., Topel Dep. at 422:22-423:18. Dr. Topel also conceded that increasing fighter compensation would increase the quality of MMA events for consumers. Topel Dep. at 475:18-476:10.

92. Dr. Blair critiques my measure of damages by observing that a “lawful monopsonist is free to adjust its purchasing decisions and thereby reduce the price it pays in order to maximize profits.”¹⁶⁶ First, my damages compare the actual world in which the challenged conduct includes contractual restrictions on fighter mobility to more competitive benchmarks with fewer such restrictions. In that sense, they are able to determine whether relaxing the challenged conduct would lead to increased fighter compensation, and by what amount. Second, my assignment in this matter is to estimate damages on the assumption that the jury finds that the challenged conduct involved an unlawful violation of the antitrust statutes. Hence, my estimated damages only apply in the event that there is a factual finding that the challenged conduct violates the antitrust laws, and that Zuffa’s monopsony power was either unlawfully obtained or unlawfully maintained.

93. Finally, Dr. Blair objects that I failed to disaggregate damages, connecting each exclusionary act with a specific share of damages.¹⁶⁷ My damages model is that the entire set of exclusionary contract clauses and anticompetitive practices work together to foreclose meaningful competition in the MMA labor market. In any event, I don’t believe that it makes sense to isolate individual clauses or practices.

VII. RESPONSE TO DR. ROBERT TOPEL’S PROCOMPETITIVE EFFICIENCY ARGUMENTS

94. In his report, Dr. Topel discusses analytical elements that appear in my report. Accordingly, I offer the following remarks here on those elements.

A. Dr. Topel’s “Free-Rider” Argument Is Flawed

¹⁶⁶ Blair Report ¶ 38.

¹⁶⁷ Blair Report ¶¶ 75-78.

95. Dr. Topel claims that Zuffa's conduct is procompetitive based on a number of "free-rider" arguments. These arguments essentially boil down to the claim that allowing Zuffa to capture rewards from a fighter's increasing success is necessary to incentivize Zuffa to invest in the promotion of fighters.¹⁶⁸ As it applies to labor more generally, the free rider contention is that employers train their workers and, subsequently, workers can take their new skills to a different company and earn a higher wage. In this narrative, the initial employer invests in the worker and then the worker free rides and reaps the returns from his or her employer's investment. Dr. Topel applies the free-rider argument to the UFC to justify the exclusionary clauses in their contracts that enable the UFC to retain its fighters. The logic goes that if the UFC could not use the challenged conduct to keep its fighters—through multi-bout contracts, rights to match, championship clauses, exclusivity provisions, etc.—then it would have less incentive to develop their skills and the quality of the MMA product would fall. There are several problems with this argument.

96. First, Dr. Topel does not articulate any limitations or bounds to his free-rider theory. Dr. Topel's formulation of the "free-rider" arguments could be made for any employer's investment in its employees, and taken to its logical conclusion, would posit that an employer would have no incentive to invest in its employees' "human capital"¹⁶⁹ (whether through training, or firm-specific know-how) unless it could ensure that it could control those employees and prevent them from taking that investment elsewhere for the entirety of their productive career. Without such limitations or bounds, such an argument would justify workers being

¹⁶⁸ Topel acknowledges that Zuffa does not invest in fighters' training but that instead fighters must make that investment themselves. Topel Report ¶ 87. In contrast, at his deposition, Dr. Topel admitted that he didn't know whether the UFC pays for fighter training. Topel Dep. at 127:15-21; 128:12-129:9.

¹⁶⁹ See Topel Report ¶ 113.

locked up indefinitely with no opportunity ever to capitalize on the value of their skills. It would be tantamount to indentured servitude.

97. Second, as I elaborated in my initial report, the free rider observation was made in the major U.S. team sports as a justification for the old player reserve system. Team owners predicted doom would befall their sports if the reserve system were ended. Of course, exactly the opposite transpired as league popularity, revenue and franchise values have soared in the free agent era. Similarly, once boxing contracts were regulated by the Ali Act and boxers' freedom to move among promoters was enhanced, promoters did not stop promoting fighters or attempting to build their reputations and followings.¹⁷⁰

98. Third, companies throughout the U.S. economy train their workers and their workers are free to carry their new skills with them to other companies. Companies that lose their trained workers continue to thrive. Of course, one of the reasons for this is that while company A may lose a worker to company B, company C may lose one of its workers to company A. With free markets, workers tend to move to where they are most productive. Further, ever since Ken Arrow's well-known 1962 article, it has been recognized and broadly

170



accepted in the literature that “mobility of personnel among firms provides a way of spreading information.”¹⁷¹

99. Fourth, the empirical literature on non-compete clauses indicates that in the real world, on balance, contracts that restrict the mobility of workers, like the challenged contracts here, discourage rather than encourage investment in human capital. Two clear paths to the growth of human capital are (1) the company invests in the worker and (2) the worker invests in himself or herself. Indeed, Dr. Topel acknowledges that “both athletes and promoters make considerable investments that increase the value of the product offered the public: athletes through their training and promoters through promoting MMA events and athletes.”¹⁷² To the extent that non-compete or exclusionary clauses motivate a company to invest more in a worker, such clauses also prevent the worker from realizing the highest possible return on his or her skills. With lower compensation, workers have less motivation to invest in their own training and skill development than they would if they were paid competitive wages. Current UFC fighters have less incentive to invest in preparation and training and prospective future UFC fighters have less incentive to build their skills in MMA versus other sports or other disciplines. Notably, the UFC does not pay at all for fighter training, nutrition, management, or healthcare (outside of

¹⁷¹ Arrow, K. “Economic Welfare and the Allocation of Resources for Invention,” in R. Nelson (ed.), *The Rate and Direction of Economic Activity*. Princeton, N.J.: Princeton University Press, 1962, pp. 609-625. For a discussion of some of the follow-up, corroboratory literature, see M. Marx, D. Strumsky & L. Fleming, “Noncompetes and Inventor Mobility: Specialists, Stars, and the Michigan Experiment,” *Management Science*, April 2009. Marx, Strumsky and Fleming employ a U.S. patent database and a differences-in-differences modeling approach between investors in states that did not enforce and did not change enforcement of non-compete laws. They find that subsequent to Michigan’s lifting its non-compete prohibition in 1985, relative to other states, Michigan experienced a decrease of 34 percent in worker mobility, with still larger effects for “star” and “specialist” inventors. Naturally, when trade secrets are involved, some form of non-disclosure agreement or a well-defined non-compete clause may be appropriate. The trade secret rationale does not apply to MMA fighters.

¹⁷² Topel Report ¶ 87.

injuries from bouts).¹⁷³ Higher compensation for fighters would encourage more self-investments in these aspects of fighter development and would thereby improve the quality of the sport. Given that the challenged conduct diminishes these investments, the quality of MMA fighting is thereby diminished, which is a clear anticompetitive effect.¹⁷⁴

100. Dr. Blair acknowledges this effect with respect to the reserve system in baseball. As he testified, suppressing athlete compensation below marginal revenue product would have the effect that “the quality of the play would be lower and that ... in turn, could have an impact on fan demand for watching major league games and ... to that extent, the value of the product that’s being offered, that is the competition o[n] the field ... is lower and consumers are worse off as a result.”¹⁷⁵ Similarly, Dr. Topel admits that fighters might invest more in their own images and identities if they received more compensation.¹⁷⁶

101. The empirical economics literature that has attempted to quantify the two human capital investment effects has consistently found that the second effect (workers investing in their own human capital development) is stronger than the first effect (companies investing in

¹⁷³ [REDACTED]

¹⁷⁴ Dr. Topel admits that, all things equal, if you increase fighter compensation relative to other sports that would improve the quality of MMA for consumers. Topel Dep. at 476:4-10.

¹⁷⁵ Blair Dep. at 148:24-149:5. He went on to note: “I remember being a Dodgers fan, that Carl Furillo, was ... a national league batting champion. And he worked in construction. He had a hard hat job in the off season. And so he wasn’t working on his baseball skills. He was just trying to earn a living ... as a construction worker. So the quality of the play ... had to suffer.” Blair Dep. at 147:20-148:3.

¹⁷⁶ Topel Dep. at 154:22-25, 155:20-24 (“They would not invest in things that were specific to the value of a particular promoter. They would invest in things that just had to do with their persona generally ... It’s that if they promoted their own image to the public, they would – they are way less likely to invest in aspects of that image that inure to Bellator or to Pride or something like that.”).

worker human capital), resulting in the conclusion that on balance the harm from non-compete clauses outweighs the benefit.¹⁷⁷

102. One piece of empirical evidence on the balance of these two effects comes from comparisons among states, some of which enforce non-compete clauses, and others which do not. For example, the state of California refuses to enforce non-compete clauses of any duration in companies' labor contracts. The facial intent of non-compete clauses is to restrict worker mobility and thereby prevent free riding, and thus allegedly promote investment and innovation. Yet, even without non-compete clauses, California and its Silicon Valley boast one of the highest rates of technological change and innovation in the world that is concentrated in human capital intensive industries. Part of the salutary effect on innovation comes from workers carrying ideas to new companies.¹⁷⁸ One 2011 publication by Samila and Sorenson used panel data for metropolitan areas during 1993 to 2002 across U.S. states to discern the impact of venture capital in spreading technology and innovation in states with and without enforceable non-compete

¹⁷⁷ See, e.g., Mark Garmaise, "Ties That Truly Bind: Non-competition Agreements, Executive Compensation and Firm Investment," *The Journal of Law, Economics & Organization*, vol 27, issue 2, August 2011, pp. 376-425; and, Omri Ben-Shahar, "California Got It Right: Ban the Non-Compete Agreements," *Forbes*, October 27, 2016, available at <https://www.forbes.com/sites/omribenshahar/2016/10/27/california-got-it-right-ban-the-non-compete-agreements/#6898c9dc3538>.

¹⁷⁸ See, e.g., Omri Ben-Shahar, *supra* n. 177. Ben-Shahar also argues that Israel earned its reputation as "startup nation" in part because of its high labor mobility and national law that is hostile to non-compete clauses. He further notes that the Obama administration wanted to ban non-competes in an effort to stoke competition and raise worker wages. The latter would be likely to occur because non-competes take away a worker's potential threat to leave a job, stripping them of leverage. The study by Ronald Gilson, "The Legal Infrastructure of High Technology Industrial Districts: Silicon Valley, Route 128, and Covenants Not to Compete," *New York University Law Review* (74:3), June 1999, attributes the more successful technological growth in Silicon Valley, compared to that along Route 128 in Massachusetts, to the existence of non-compete legislation in California, but not in Massachusetts. Matt Marx and Lee Fleming conclude that non-compete clauses help established firms, but hurt younger, more dynamic or prospective firms as well as damage the interests of individual workers. Marx & Fleming, "Non-compete Agreements: Barriers to Entry ... and Exit?" in Josh Lerner & Scott Stern (eds.) *Innovation Policy and the Economy*, vol. 12. Chicago: University of Chicago Press, 2012.

clauses. They found that states that proscribe enforcement of non-compete clauses experience faster growth in the number of patents, in the number of firm starts and in employment.¹⁷⁹

103. Dr. Topel fails to quantify *in any respect* the degree to which the so-called free-rider problem would reduce Zuffa's incentives to invest in promotion,¹⁸⁰ or the degree to which those alleged reduced incentives would restrict MMA output, if at all.¹⁸¹ Thus, in contrast to the growing body of empirical research on the free-rider incentive, Dr. Topel makes no effort to quantify the amount of investment and resulting human capital development supposedly encouraged by the challenged contracts, or to balance that against potential reductions in athlete investments in themselves. Indeed, while Dr. Topel hypothesizes that "Zuffa might have an incentive to disproportionately promote matches featuring established athletes" in the absence of the challenged conduct, his conclusion is qualified by the term "might" and offers no concrete

¹⁷⁹ Sampsa Samila & Olav Sorenson, "Noncompete Covenants: Incentives to Innovate or Impediments to Growth," *Management Science*, vol 57, no. 3 (March 2011), pp. 425-438.

¹⁸⁰ See, e.g., Topel Dep. at 149:7-25 (conceding that he did not quantify the total amount of dollars that the UFC spent on promoting fighters or any fighter in particular); Topel Dep. at 150:8-24 (conceding that he did not quantify the total amount of dollars that UFC spent on promoting its brand as opposed to promoting its fighters); Topel Dep. at 150:1-7 (conceding that he made no effort to calculate the extent to which eliminating the challenged conduct would affect Zuffa's investments in promoting athletes: "Q. You don't in your report quantify the total amount of promotional investment in athletes that you believe would be lost if the challenged contractual provisions were eliminated, do you? A. You mean do I have a dollar amount on it? Q. Correct. A. We didn't put a dollar amount, no."); Topel Dep. at 153:18-25 ("Q. Can you show me a table in your report where you quantify the amount of promotional dollars . . . that would be lost [absent the challenged conduct]? Is there a table in your report where I can find that? A. No. That's not part of my analysis or part of my opinions.").

¹⁸¹ Topel Dep. at 157:23-158:8; 159:14-160:10; 163:12-164:1; (admits that he did not compute the reduced revenues to MMA events that would occur absent the challenged conduct); Topel Dep. at 165:23-166:2; 167:13-168:7 (admits that he did not compute the reduction in output that would be caused by any purported increase in transaction costs in the but-for world); Topel Dep. at 284:14-18 (admits that he did not do any analysis of how output would be affected in a but-for world where Zuffa's contracts were shorter).

evidence from the record in support.¹⁸² On the contrary, as I describe in my opening report, in boxing the Muhammad Ali Act forbids much of the challenged conduct, and yet boxing promoters regularly promote fights for up-and-coming fighters.¹⁸³

104. Finally, Dr. Topel ignores that Zuffa requires athletes to be established before Zuffa signs them, much less invests in promoting them. Indeed, record evidence demonstrates that Zuffa's matchmakers required fighters to achieve wins (usually many wins) against qualified opponents before the UFC will consider signing them.¹⁸⁴ Furthermore, because athlete training in the UFC is the athletes' responsibility, the UFC does not invest in athlete training. Unlike in the professional team sports, there are no team-sponsored training camps or minor leagues in the UFC (except to the extent that non-Zuffa promoters act as the minor leagues, but that involves no investment from Zuffa).

B. Dr. Topel's Reliance on Other Promoters' and Sports' Practices To Evidence Procompetitive Purpose Is Unfounded

105. Dr. Topel claims that because MMA promoters other than Zuffa, as well as other sports leagues, use contract provisions that are similar to certain of Zuffa's challenged contract provisions, such provisions must serve procompetitive purposes.¹⁸⁵ Not so.

¹⁸² Dr. Topel's claim that "[w]ith no limitations on switching among promoters, this free riding would reduce the investments made by promoters in MMA events, and decreases the value of MMA events to consumers, athletes, and promoters" likewise offers no analysis or citation to record evidence. *See* Topel Report ¶ 87.

¹⁸³ *See supra* n. 170.

¹⁸⁴ Silva Dep. at 114:13-119:15. "So if the majority of your opponents have losing records, they're probably not very good, so it doesn't tell me much about your ability... I would like your guy to have more experience and have experience against better people." *Id.* at 128:23-129:11. "Beating guys with crappy records won't convince anyone [a fighter is] ready for the big leagues." *Id.* at 129:10-21.

¹⁸⁵ Topel Report ¶¶ 83-84.

106. Dr. Topel is incorrect that simply because a firm without monopoly power uses a contractual provision (or engages in a practice), that necessarily indicates that the provision (or practice) has a procompetitive purpose. Any promoter – with or without market power – would have an incentive to lock up a fighter using a long-term contract that binds the athlete but not the promoter. Such contracts allow the promoter to benefit from the increased skill and notoriety of the athlete, without having to increase the compensation of that athlete commensurately to match the increased revenue that athlete generates. In a competitive market, an athlete would never agree to such a contract. However, if a dominant promoter with market power is able to extract such contracts from athletes due to its market power, it would be rational for fringe promoters to impose the same provisions, even if the fringe promoters do not have market power. The athletes will be forced to accede to such terms if they have limited options. This effect is similar to the way that firms who are not members of a price-fixing cartel often find it profitable to price under the umbrella price of the cartel.¹⁸⁶ As Dr. Blair admits, the same economic logic applies to non-price contract terms.¹⁸⁷ Thus, the fact that a firm without market power may find it profitable to engage in the same behavior as the cartel does not mean that such conduct is procompetitive.

107. As Dr. Topel himself observes, economics recognizes that even procompetitive conduct engaged in by a firm without market power can be anticompetitive when that same

¹⁸⁶ Dr. Blair made this exact point in his co-authored article *Umbrella Pricing and Antitrust Standing: An Economic Analysis*, 1982 Utah L. Rev. 763, 785. See also Roger D. Blair & William H. Page, “Speculative” *Antitrust Damages*, 70 Wash L. Rev. 423, 439 (1995) (describing this same theory); Blair Dep. at 73:19-23 (“So, when you have a dominant firm facing a competitive fringe, if the dominant firm suppresses the wage level below the competitive wage, the competitive fringe will pay that same suppressed wage as well? A. Yes.”).

¹⁸⁷ Blair Dep. at 112:25-115:6 (“Q. Does the same logic of [the umbrella pricing] model apply ... to non-price transactional terms such as who bears the risk of injury, for example? A. ... [W]hen we start to talk about some of these terms ... one would expect ... maybe not initially, but you would expect the terms to wind up being roughly the same ... in a market ... just through adjustments over time as you move to an equilibrium.”).

conduct is engaged in by a firm with market power.¹⁸⁸ Thus, the mere fact that smaller MMA promoters use certain practices does not imply that those practices are procompetitive when used by Zuffa, the dominant MMA promoter.

108. Furthermore, even if a provision or practice has a procompetitive purpose, one must measure the procompetitive effects against the anticompetitive effects of the provision or practice. Indeed, as noted in the leading legal antitrust treatise by Professors Areeda and Hovenkamp:

[W]e believe it would be unwise policy, especially in the face of actual or threatened monopoly, to focus solely on the benefit side of the equation while ignoring the adverse effects of dominant firm behavior. For example, a firm's conduct might consist largely of ordinary business practices, yet be highly exclusionary because of the industry structure and the firm's market power. So too, the actions of the would-be monopolist may enhance efficiency or product performance, albeit marginally, although the overall competitive effect is decidedly negative. In a similar vein, there are shortcomings in a test which relies exclusively on determining whether the conduct would have been rational for a smaller firm... [B]ehavior that is rational for a firm with little or no market power may nevertheless produce substantial and unnecessary anticompetitive effects when wielded by a firm with considerable market clout.¹⁸⁹

Dr. Topel did not perform any analysis to determine whether the challenged practices were procompetitive on balance. Regardless, even if there are procompetitive reasons for other MMA promoters with little market power to engage in similar practices to the challenged conduct, as

¹⁸⁸ See Topel Dep. at 358:30-35 (“Q. Would you agree with me that the conduct engaged in by a firm without market power . . . could have anticompetitive effects when that same conduct is engaged in by a firm with market power? A. That’s conceivable.”); see also Salop, Steven C., *The Flawed Incremental Price-Cost Test*, 81 Antitrust L.J. 371, 374, n.10 (2017) (“...where the conduct by a competitive firm is determined to be procompetitive, that showing alone does not imply that the same conduct by a dominant firm would be procompetitive”).

¹⁸⁹ Phillip E. Areeda (late) & Herbert Hovenkamp, *ANTITRUST LAW: AN ANALYSIS OF ANTITRUST PRINCIPLES AND THEIR APPLICATION*, ¶ 737 (4th ed. 2017) (quoting *In re E.I. DuPont De Nemours & Co.*, 96 F.T.C. 653, 738-39 (1980)).

set forth herein and in my opening Report, such conduct, when wielded by Zuffa, produces substantial and unnecessary anticompetitive effects.

109. Moreover, while Zuffa's rival promoters included *some* of the challenged contractual provisions, unlike Zuffa, none of them had the confluence of contractual provisions and extra-contractual conduct that would have allowed them to lock up their fighters essentially on a perpetual basis. Moreover, Bellator's CEO stated that it would have removed its Right-to-Match provision if Zuffa would have agreed to do so, demonstrating that Bellator was using the provision in response to Zuffa (under Zuffa's "umbrella"), and not for procompetitive reasons.¹⁹⁰ Moreover, several smaller MMA promotions had Zuffa "out" clauses, which were provisions that allowed fighters out of their contracts if they received an offer from Zuffa to fight for the UFC. Dr. Topel recognized that smaller MMA promotions had such "out clauses,"¹⁹¹ and observed that Zuffa "out clauses" are efficient and procompetitive.¹⁹² Further, many smaller

¹⁹⁰ ZFL-1904802 at 802-03 ([REDACTED]).

¹⁹¹ See Topel Dep. at 319:16-320:7 ([REDACTED]); Topel Dep. at 322:10-323:8 (acknowledging that MMA promotions with Zuffa out clauses "recognize in advance that their best fighters could leave and go to Zuffa at any time").

¹⁹² See Topel Dep. at 323:9-17 (Day Two) ("Q. So MMA promotions that don't have market power use a provision that would allow them to go to Zuffa in order to attract them to come to their promotion; is that your opinion? A. Some entities include in their contract in order to attract fighters the right to move to Zuffa. Q. [I]s that efficient? A. Well, given that it survives for those entities, it's probably an efficient way of attracting people."); see also Topel Dep. at 324:25-325:10 (admitting that Zuffa-out clauses used by Zuffa's rivals without market power are procompetitive by virtue of prior logic that undergirds his efficiency defense of certain restrictions, and stating "For these entities in the situations that they're in the fact that they use a

MMA promoters regularly let fighters fight for other promoters while they were under contract.¹⁹³ Thus, it appears that non-Zuffa MMA promotions had contracts that were less restrictive of fighter mobility than Zuffa's contracts, and would have been less restrictive still were it not for Zuffa's dominant presence in the market.

110. Dr. Topel's reliance on other professional sports to justify the UFC's use of the champion's clause and restrictions on the licensing of clips is equally unavailing.¹⁹⁴ First, Dr. Topel does not cite any other sport that uses a champion's clause. Such clauses used to be employed in boxing but were subsequently banned by the Muhammad Ali Act because they were considered to be "coercive." Similarly, the champion's clause and the reserve clauses previously prevalent in the major U.S. team sports leagues share strong similarities. Though the champion's clause is limited to champions and the reserve clauses applied to all athletes, the clear anticompetitive nature and effect of such clauses remain (and in the case of the reserve clause were struck down by courts or arbitrators in each sport as set forth in my opening Report). Furthermore, although it is true that in the NFL teams have the right to designate a Franchise Player, as set forth above, those players are compensated according to a market standard and the terms governing the use of the Franchise Player designation are collectively bargained (and exempt from antitrust challenge).

business practice that . . . don't have any material market power, the fact that they use that business practice means that it has a procompetitive rationale for them").

¹⁹³ Coker Dep. at 32 ("Q. During your tenure at Strikeforce, so after 2006 when Strikeforce started -- well, let me withdraw that. During the period from 2006 to the time of the sale of Strikeforce in March of 2011, did Strikeforce allow fighters to fight for other MMA promotions, that is, promotions other than Strikeforce? A. Yes. Q. And those were fighters that were under contract with Strikeforce? A. Yes."). *Id.* at 34 ("Did the fact that fighters under contract with Strikeforce fought for other promotions, did that impair Strikeforce's ability to do its business in any way? A. No.").

¹⁹⁴ Topel Report ¶ 89.

C. **Dr. Topel's Argument that Transaction Costs Make Co-Promotion Cost-Prohibitive Does Not Justify Zuffa's Conduct**

111. Dr. Topel alleges that Zuffa's challenged contractual provisions are also pro-competitive because they reduce transaction costs.¹⁹⁵ Again, to be meaningful, Dr. Topel needs to do an empirical analysis that compares the pro- and anti-competitive effects of these provisions, which he has not even attempted to do, let alone quantify any of these alleged effects. Further, as a general proposition, Dr. Topel's claim makes no sense. By logical extension, the lowest transactions costs would obtain under slavery.

112. Dr. Topel claims that exclusive, multi-bout contracts are [REDACTED] [REDACTED] because Zuffa needs fighters who are "[REDACTED] [REDACTED] r."¹⁹⁶ However, these benefits could just as easily be achieved by a contract that commits a fighter to fighting a certain number of bouts (and that number could indeed be a single bout) and to be available to fight at a certain time or times. Dr. Topel does not explain why the contracts must be exclusive to Zuffa in order to accomplish this goal, or include more than a single bout at a time. Nor does he explain why the rest of the challenged conduct, such as the exclusive negotiating period, the right-to-match clause, or the champion's clause, are necessary to achieve these results, or how they even contribute to them. Record evidence contradicts Dr. Topel's position.

113. Relatedly, Dr. Topel asserts that "inherent to this solution to the transaction cost issue is that the marketplace will rely on matches between athletes contracted to the same promoter."¹⁹⁷ Implicitly, he acknowledges that co-promoted matches could be a less-restrictive

¹⁹⁵ Topel Report ¶¶ 90-97.

¹⁹⁶ Topel Report ¶ 93.

¹⁹⁷ Topel Report ¶ 95.

alternative for solving his alleged transaction cost problem, because it would allow promoters to make whatever matchups that fans want to see, but he asserts that in MMA “co-promoted matches, in which athletes from different MMA promoters compete against one another, are apparently non-existent.”¹⁹⁸ Dr. Topel is wrong. Zuffa has an incentive to refuse to co-promote fights because it does not want to risk empowering a rival promoter to challenge its dominance. However, other MMA promoters who lack market power regularly allow their fighters to fight for other promotions, and are willing to co-promote events.¹⁹⁹ This makes sense, because promoters *without* market power have a strong incentive to create the matchups that can drive the largest audiences. Refusing to co-promote a fight that fans want is simply leaving money on the table.²⁰⁰ Zuffa can afford to leave that money on the table because it is counterbalanced by the

¹⁹⁸ *Id.*

¹⁹⁹ Mr. Coker explained in 2010 that “The way our company philosophy has always promoted or it has not been afraid of *co-promoting*, we did it all the time. We did it when we got into the business in mixed martial arts with, at the time, EliteXC. We’ve done it with M-1. We’ve done it with Dream.” *Scott Coker Talks Co-Promotion and Negotiations with Fedor, But is Conspicuously Mum About CBS Negotiations*, CAGE POTATO, (undated), available at <http://www.cagepotato.com/scott-coker-talks-co-promotion-and-negotiations-fedor-conspicuously-mum-about-cbs-negotiations/> (emphasis added); Coker Dep. at 32 (“Q. During your tenure at Strikeforce, so after 2006 when Strikeforce started -- well, let me withdraw that. During the period from 2006 to the time of the sale of Strikeforce in March of 2011, did Strikeforce allow fighters to fight for other MMA promotions, that is, promotions other than Strikeforce? A. Yes. Q. And those were fighters that were under contract with Strikeforce? A. Yes.”). *Id.* at 34 (“Did the fact that fighters under contract with Strikeforce fought for other promotions, did that impair Strikeforce's ability to do its business in any way? A. No.”); ZUF-00031973 (

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supracompetitive profits Zuffa reaps from its monopoly power. However, even Zuffa is willing to co-promote fights when it is not concerned about its market power being threatened (and when Zuffa, itself, lacks market power). The Mayweather-McGregor fight is a perfect example of this, because Zuffa lacked the market power in the boxing industry (and the exclusive fighter relationships) necessary to execute the fight without co-promotion. Boxing is a perfect illustration of how co- and cross-promotion incentivize promoters to organize fights with popular matchups without requiring a single promoter to have all of the best fighters locked up under indefinitely long contracts. Multiple boxing promoters have testified that they regularly co-promote.²⁰¹ Prof. Topel claims that co-promotion only works in boxing because of the existence of sanctioning bodies which mandate it in certain circumstances (when a champion must fight a mandatory challenger to maintain his or her belt).²⁰² However such co-promotion is not limited to matchups that are mandated by sanctioning bodies.²⁰³

114. The existence of robust co-promotion in boxing indicates that, even if Dr. Topel were correct about “[t]he absence of cross-promotion, even among Zuffa’s competitors,” that would only be evidence of Zuffa’s dominance of the sport, not evidence that “cross-promotion is

²⁰¹ See *supra* n. 200.

²⁰² Topel Report ¶ 91.

²⁰³ Leon Margules, President of Warriors Boxing, testified [REDACTED] Margules Dep. at 25:20-24; *see also* Margules Dep. at 119:8-14 [REDACTED]

[REDACTED]”).

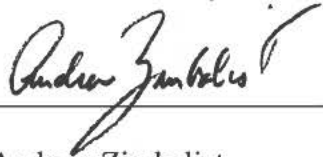
an inferior business model in MMA.”²⁰⁴ The most plausible explanation for the difference between MMA and boxing is Zuffa’s grip over the sport of MMA, not that cross-promotion is somehow more inefficient in MMA. The economics of both sports are otherwise structurally very similar.

VIII. CONCLUSION

115. I have reviewed the five expert reports commissioned by Zuffa. In this report I have responded to the critiques, both direct and indirect, made of my initial report. In the process, I have had the opportunity to expand on many of my arguments and to empirically update part of my analysis. I have found the criticisms of my initial report to be unfounded and unavailing; none of them undermines the reliability of my analysis or my estimation of damages.²⁰⁵ If new information becomes available to me, I reserve the right to supplement or modify my opinion.

²⁰⁴ Topel ¶ 95.

²⁰⁵ [REDACTED]

A handwritten signature in black ink, appearing to read "Andrew Zimbalist", is written over a horizontal line.

Andrew Zimbalist

Executed on December 26, 2017